2001 Louisiana Environmental Inventory Report

April 2003

Toxics Release Inventory
Emissions Inventory
Toxic Emissions Data Inventory

Prepared for the citizens of Louisiana
by the
Department of Environmental Quality

1st Annual Edition-2003

Acknowledgements

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We extend our genuine thanks and appreciation for their commitment to this program. It is our hope, that the distribution of information by this agency will enhance the environmental awareness of the citizens of Louisiana. With your support, we will continue working toward the overall mission of this agency and the protection of human health and the environment.

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Secretary, Department of Environmental Quality

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April 4, 2003

Dear Readers:

The Louisiana Department of Environmental Quality is pleased to release the *2001 Louisiana Environmental Inventory Annual Report*. This report is a compilation of environmental inventory data submitted to the agency by regulated facilities. The publication of this report is part of the agency's renewed commitment to maintain a healthful and safe environment for the citizens of Louisiana.

In previous years, the publication focused on Toxics Release Inventory (TRI) data. In order to provide a more comprehensive view of the environmental data collected by the agency, data from the Emissions Inventory (EI) and Toxic Emissions Data Inventory (TEDI) Programs have been consolidated with TRI data into one publication. The 2001 data continues to reflect a reduction in the release of toxic chemicals to our environment. As a reminder, the 2001 data was collected by facilities from January 1, 2001 to December 31, 2001. EI data was submitted by March 31, 2002 while TRI and TEDI data were submitted to the agency by July 1, 2002. After the data was compiled and verified for accuracy, the consolidated report was prepared for publication.

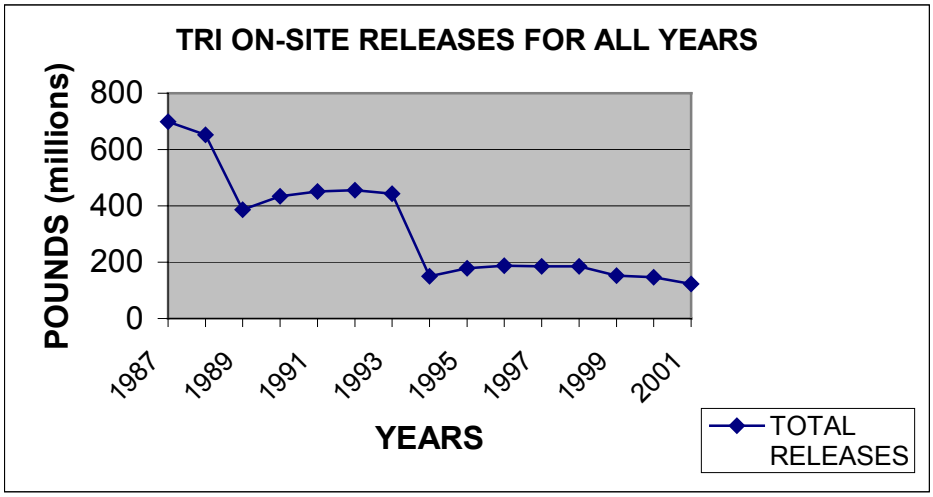
Through this more comprehensive presentation of the data, we maintain our pledge to the public to promote and achieve environmental improvements that lead to an improved quality of life for all Louisianians.

Sincerely,

L. Hall Bohlinger
Secretary

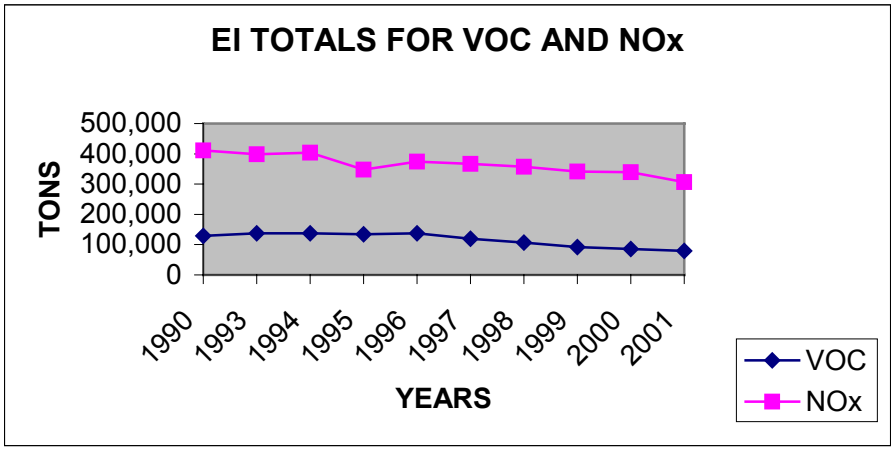
Executive Summary

The 2001 Louisiana Environmental Inventory Annual Report illustrates that the state continues to display a downward trend in the toxic chemical emissions reported to the inventory programs, Toxics Release Inventory (TRI), Emissions Inventory (EI), and the Toxic Emissions Data Inventory (TEDI). Each inventory program has different reporting requirements as shown in the "Foreword" of this report. The annual report includes data from 376 **TRI** facilities, which submitted over 3000 forms by the due date of July 1, 2002. The parish with the greatest TRI releases was Ascension Parish, which had 19 TRI facilities that reported over 22 million pounds of TRI chemicals. The facility with the most TRI releases was Cytec in Jefferson Parish, which reported over 10 million pounds in releases. The TRI chemical for 2001 with the greatest emissions to all media was ammonia, of which over 17 million pounds was reported.



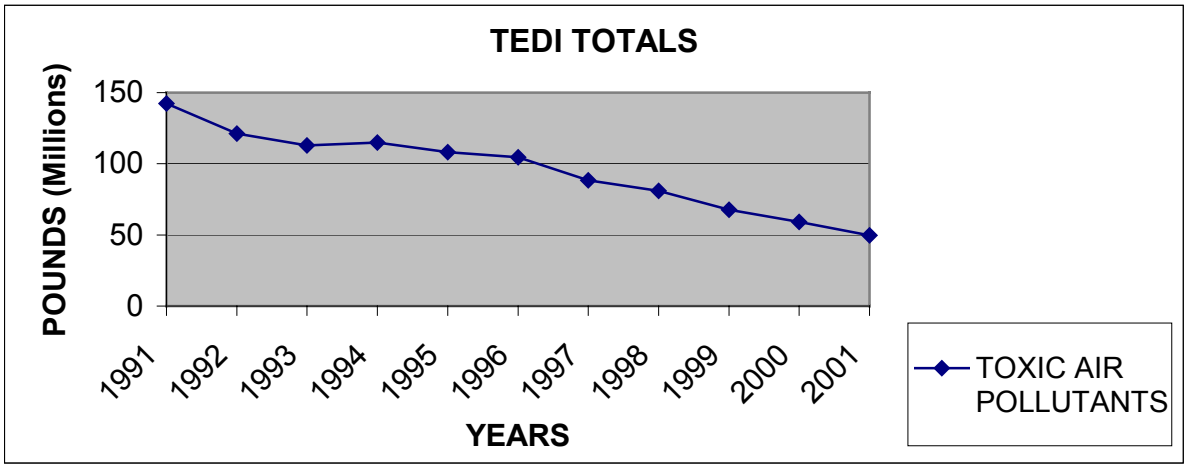
Graph 1-TRI ON-SITE RELEASES FOR ALL YEARS. This figure includes all TRI chemicals (excluding dioxins) and facilities. The media included in the release totals are air, water, land, and iinjection. The state shows a decline of 82% from 1987, and a decline of 16% from 2000. Air releases for 2001 represented 47% of the total releases (58,367,954 pounds), water releases represented 10% (11,908,447 pounds), land releases represented 13% (15,647,182 pounds), and underground injection represented 30% (37,112,860 pounds).

The report also contains **EI** data for 870 facilities, which submitted data by the due date of March 31, 2002. Approximately 400,000 tons of Volatile Organic Compounds (VOC) and Nitrogen Oxides (NOx) were reported. Calcasieu Parish was the leading emitter of both VOC and NOx. The top facilities for reported VOC emissions were Riverwood International Plant #31 (Ouachita Parish) and Citgo Petroleum (Calcasieu Parish). The primary facility for reported NO_x emissions was Louisiana Generating-Big Cajun 2 (Pointe Coupee Parish).



Graph 2-EI TOTALS FOR VOC AND NO_x. This figure includes data from all EI point sources and the reported VOC and NO_x releases to the air. Based on the facilities reporting to EI, the state shows a 39% decrease in VOC and a 25% decrease in NO_x from 1990. Since 2000, facility reported VOC emissions decreased by 7% and NO_x emissions decreased by 9%.

The report also contains **TEDI** data for 277 facilities, which also submitted data by July 1, 2002. Nearly 50 million pounds of Toxic Air Pollutants (TAPs) were reported to TEDI. The leading parish with the greatest emissions in the TEDI Program for 2001 was Ascension Parish. The parish also had CF Industries, the TEDI facility with the largest emissions. This facility reported approximately 5 million pounds to the TEDI Program. The leading chemical reported under the TEDI program was also ammonia (approximately 12 million pounds).



Graph 3-TEDI TOTALS. This figure includes all TEDI chemicals and facilities; the media is air. The state shows a 65% decrease in TAPS from 1991, and a 16% decrease from 2000.

Foreword

Protection of the environment and the promotion of the health, safety and welfare of the people of Louisiana is the overall mission of the Department of Environmental Quality (DEQ). Through its Office of Environmental Assessment, the agency provides an effective means to develop and implement environmental regulations, construct strategic plans, inventory and monitor emissions, report on the performance of the environment, offer technical expertise, and perform remediation of contamination in the environment.

In order to protect the environment, mandates at the state and federal level require that industrial facilities comply with all applicable regulations, particularly those requiring the annual monitoring and reporting of emissions to the environment. These annual reports include the *Toxics Release Inventory (TRI),* the *Emissions Inventory (EI)*, and the *Toxic Emissions Data Inventory (TEDI).* Prior to the agency's reorganization, the regulatory programs for each of these reports were under different offices within DEQ. Both the EI and TEDI Programs were in the Office of Air Quality, and the TRI Program resided in the Office of the Secretary, Technical Support Section. Since the reorganization, these inventory sections have been brought together under the Environmental Evaluation Division in the Office of Environmental Assessment. A brief comparison of the inventory programs is shown in the table below:

Program	Federal Statute	State Regulation	Baseline Year	Reporting Media	# Reportable Chemicals	Facility Sources
TRI	Emergency Planning and Community Right-to-Know Act of 1986	Environmental Quality Act Section 2011.1	1987	Air, Injection, Land, Water	650 Toxic Chemicals	Specified Standard Industrial Classification (SIC) Codes
TEDI	Clean Air Act of 1990	LAC 33:III. Chapter 51	1991	Air Only	200 Toxic Air Pollutants	Major & Some Minor Sources of Toxic Air Pollutants
EI	Clean Air Act of 1990	LAC 33:III. Chapter 9	Varies by pollutant	Air Only	6 Criteria Pollutants	Major Sources of Hazardous Air Pollutants

As indicated in the table, each of these inventory programs targets specific chemicals, facility sources and media. The reporting requirements vary for all three programs; however, if a facility meets the reporting requirements for all three programs, it must submit a report for all three programs on the appropriate due date. Since these programs have been brought together under the same division, the annual submissions of reporting facilities are more closely monitored, which has improved the quality of the data collected by the inventory programs. It is the overall goal to continue to seek new ways to improve and enhance data quality

Chapter 1-Toxics Release Inventory (TRI)

1.0 TRI Introduction

In 1986, Congress passed the Emergency Planning and Community Right-to-Know Act (EPCRA), establishing the Toxics Release Inventory (TRI) under Section 313. TRI is a program that was conceived from the public's need to have information on toxic chemicals in their communities. Prior to 1986, this information was not made readily available to the public and was not required to be provided by facilities. With the enactment of EPCRA, facilities are required to annually submit, to both the USEPA and the state in which they operated, information concerning the amount of toxic chemicals released and managed on-site and off-site as waste. The information is compiled and disseminated to the public through annual publications at the state and national level.

EPCRA consists of three subtitles: *Subtitle A*: Emergency Planning and Notification, *Subtitle B*: Reporting Requirements, and *Subtitle C*: General Provisions. The TRI, Section 313, falls under *Subtitle B*: Reporting Requirements. Upon enactment of EPCRA, each governor appointed a State Emergency Response Commission (SERC), which was charged with implementing a hazardous materials information system regarding Community Right-to-Know. Louisiana implemented the state's first "Right-to-Know" law, Act 435, in 1985. The Legislative Session of 1987 amended the Louisiana Right-to-Know Act with Act 437, to resolve any conflicts existing between the state and federal laws.

1.1 Reporting Under TRI

Section 313 of EPCRA requires facilities to report releases of toxic chemicals if:

1. they have 10 or more full-time employees. Full-time means that a person is employed for 2,000 hours or more per year.

2. they operate under Standard Industrial Classification (SIC) codes 20-39, or in the following industry sectors: metal mining, coal mining, electric utilities, commercial hazardous waste treatment facilities, chemical and allied products wholesale, petroleum bulk terminals and plants wholesale, solvent recovery services, or is a federal facility. SIC codes consist of four digits; the first two numbers identify the major business sector, and the other two define the specialty within the major sector.

3. they exceed the "manufacture" or "process" threshold of 25,000 pounds or the "otherwise used" threshold of 10,000 pounds, for any listed toxic chemical. The term "manufacture" is defined as producing, preparing, compounding, or importing a listed Section 313 chemical. "Process" is defined as preparing a listed Section 313 chemical after its manufacture for distribution in commerce. The term "otherwise used" refers to any activity, involving a listed 313 chemical, at a facility that is not encompassed by the definition of manufacture or process. An "otherwise used" chemical is not intentionally incorporated into a product distributed in commerce.

Originally, only the manufacturing sector was included in the reporting criteria. Through the years, EPA has recognized the need to include other industrial sources of toxic chemicals under the reporting criteria as well. Additionally, the TRI chemical list has been modified by including or deleting chemicals that do or do not meet the toxicity criteria. EPA recently lowered the reporting threshold for a group of chemicals, based on their "persistent" and "bioaccumulative" characteristics. Data for these **P**ersistent, **B**ioaccumulative and **T**oxic **(PBT)** chemicals will be presented in greater detail in Chapter 2.

A toxic chemical release inventory (**Form R or Form A**) must be filed for each listed chemical that is manufactured, processed or otherwise used above the threshold limits in a calendar year. Form R's provide estimated quantities of chemicals released into the air, water, underground injection wells, and land environments. A facility is not required to initiate any new monitoring or take any additional measurements to determine the amount of chemicals released. The law requires facilities to base TRI reports on measurements and monitoring data when these are available; however, if such data is not available, the amounts are estimated based on published emission factors, mass balance equations or engineering judgment. The **Form R** contains:

- Facility's physical address
- Contact person regarding reported information
- Facility's specific permit number
- On-site use of the reported chemical
- Maximum amount of the chemical on-site
- Estimated amount of the chemical released into the environment by media
- Names and addresses of Publicly Owned Treatment Works (POTWs) and other off-site locations and the amount of the chemical sent for other waste management
- Estimated amount of the chemical released due to remedial actions, catastrophic events or one time events not associated with the production process (accidental releases)
- On-site waste treatment efficiency
- On-site recycling and energy recovery processes
- Production ratio or activity index
- Source reduction activities

A facility may submit a **Form A** or Certification Statement on a per-chemical basis. When a facility submits a Form A, the facility certifies that the alternate threshold of one million pounds for the specified chemical was not exceeded, and the release/transfer amount to be reported was less than 500 pounds. Both Form R's and A's for the year must be submitted to both the DEQ and EPA by July 1st of the following year. The report contains data from January 1st to December 31st, and is made available to the public 6-8 months later.

1.2 On-site and Off-site Releases

A release is a discharge of a toxic chemical to the environment. Routine on-site releases include emissions to the air, discharges to bodies of water, releases at the facility to land, and injection into underground wells. Releases are reported to TRI by media type. Chemicals transferred off-site for disposal are also considered to be releases. Therefore, on-and off-site releases include releases to the environment at the facility (Section 5 of the Form R) plus off-site transfers to disposal facilities (Section 6 of the Form R).

Air Emissions

Air releases are reported either as point source or fugitive emissions. Point source emissions can be referred to as stack emissions, and occur through confined air streams (stacks, vents, ducts, pipes). Fugitive emissions are all releases to the air that are not released through a confined air stream. Equipment leaks, evaporative losses from surface impoundments and spills, and releases from building ventilation systems are examples of fugitive emissions.

Surface Water Discharges

Releases to water include discharges to streams, rivers, lakes, oceans and other bodies of water. Releases from contained sources, such as industrial process outflow pipes or open trenches are also included. In addition, releases due to runoff, including stormwater runoff, are also reportable to TRI.

Underground Injection

Underground Injection is defined as the subsurface emplacement of fluid through wells. TRI chemicals associated with manufacturing, the petroleum industry, mining, commercial and service industries, and federal and municipal government related activities may be injected into Class I, II, III, IV, or V wells, if they do not endanger underground sources of drinking water (USDW), public health, or the environment. The different types of authorized injection activities are described below:

- Class I industrial, municipal, and manufacturing wells inject fluids into deep, confined, and isolated formations below potable water supplies.
- Class II oil and gas related wells re-inject produced fluids for disposal, enhanced recovery of oil, or hydrocarbon storage.
- Class III wells are associated with the solution mining of minerals.
- Class IV wells may inject hazardous or radioactive fluids directly in USDW, only if the injection is part of an authorized CERCLA/RCRA clean up operation.
- Class V wells, which include all types of injection wells that do not fall under Classes I-IV, may inject only if they do not endanger USDW, public health, or the environment. Class V wells are generally shallow drainage wells, such as floor drains connected to dry wells or drain fields.

Since the 1996 reporting year, facilities separately report amounts injected into Class I wells and into all other wells (see above Class II - Class V).

On-site Land Releases

On-site releases to land occur within the boundaries of the reporting facility. Releases to land include the following: disposal of toxic chemicals in landfills (in which wastes are buried), land treatment/application farming (in which waste containing a TRI chemical is incorporated into soil), surface impoundments (which are uncovered holding areas used to volatize and/or settle waste materials), and other land disposal methods (i.e. waste piles) or releases to land (i.e. spills, leaks). Since 1996, facilities report separately amounts released to RCRA Subtitle C landfills.

Off-site Releases (Transfers Off-Site for Disposal)

Toxic chemicals in waste that are transferred to a facility for disposal are generally either released to land at an off-site facility or are injected underground.

1.3 TRI Benefits and Limitations

Benefits

The purpose of the TRI program is to provide public access to toxic chemical release and chemical transfer data at the local, state, regional and national level. Responsible use of the data can help the public gain a better understanding of potential risks, and work with industry and government to reduce toxic chemical releases, and the associated risks. Citizen groups have used TRI data as a tool to open the lines of communication with industrial neighbors and develop common goals focused on a healthier environment.

Government can use the data to compare facilities or geographic areas, identify areas of concern, evaluate existing environmental programs, more effectively set regulatory priorities, and to track pollution control and waste reduction. TRI data, along with demographic data, can assist government agencies in identifying potential environmental justice concerns.

Industry can use the data to obtain an overview of releases and management of toxic chemicals, identify areas to reduce costs in the management of toxic chemicals in waste, establish reduction targets and monitor progress toward reduction goals.

Limitations

Although TRI data is a key source of environmental data, there are some limitations that must be considered when using the data. Prior to 1998, the program only targeted manufacturing and federal facilities as the reporting entities. The subsequent expansion of the program encompassed a broader range of facilities (those producing energy, further managing of products, further managing of waste from the manufacturing sector), but does not cover all sources of releases or waste management activities. The program also captures a significant portion of toxic chemicals, but does not cover all toxic chemicals. Facilities that do not meet the employee or quantity threshold do not report. The program also does not capture data on emissions from motor vehicles nor from the majority of sources that release volatile organic compounds, pesticides, fertilizers or from many non-industrial sources. While TRI captured over 7 billion pounds of on-site and off-site releases last year, only a portion of toxic chemical releases nationwide are represented by the data. There still remains numerous sources of toxic chemical releases not subject to TRI reporting.

Another limitation of the program is that facilities report estimated data, using various estimation techniques; they are not required to perform any additional monitoring. Variations from within industry sectors may result from the use of different estimation techniques (estimation guidance has been published by the EPA). Users should be aware of these limitations when considering data accuracy and comparability. Users should also be mindful that release estimates alone are not enough to determine exposure or to calculate the risk of adverse effects on human health. Factors to consider when using TRI data include:

Toxicity of the chemical- small releases of highly toxic chemicals may pose greater risks than large releases of less toxic chemicals.

Exposure- the potential for exposure increases the longer a chemical remains unchanged in the environment. Some chemicals quickly break down into simpler, less toxic forms, while others accumulate in the environment and become a potential source of long-term exposure.

Type of Release- chemical exposure of a population depends on the environmental medium (air, water, etc.) where the chemical is released. The medium affects the type of exposures possible, such as inhalation, dermal exposure, or ingestion. Individual characteristics (age, sex, family traits, life style, etc.) are also factors to consider when trying to assess how chemicals affect us.

1.4 What's New in TRI?

Persistent, Bioaccumulative Toxins (PBTs)

On October 29, 1999, the EPA finalized a rule (*Federal Register*, Vol. 64, No.2) that lowered the reporting thresholds for chemicals that were persistent, bioaccumulative, and toxic (PBT). The rule also lowered the threshold for dioxin and dioxin-like compounds. The rule added certain other PBT chemicals to the TRI list. These chemicals persist in the environment and accumulate in biological tissue over long periods of time. Chemicals with these characteristics may pose potential risks to human health and the environment. EPA lowered the reporting threshold to ensure that the public would have access to important information about the quantities of these chemicals entering their communities. Reporting year 2000 was the first year that facilities reported under the lower PBT thresholds. Seven chemicals and two chemical categories were added to the list of TRI chemicals.

PBT Chemicals Added:

Benzo(g,h,I)perylene
Benzo(j,k)fluorene (fluoranthene) (as a member of the PACs category)
3-methylcholanthrene (as a member of the PACs category)
Octochlorostyrene

Pentachlorobenzene
Tetrabromobisphenol A (TBBPA)
Dioxin and dioxin-like compounds (manufacturing; and the processing or otherwise use of dioxin and dioxin-like compounds if the dioxin and dioxin-like compounds are present as contaminants in a chemical, and if they were created during the manufacturing of that chemical)

Non-PBT Chemicals Added:

Vanadium (except when contained in an alloy)
Vanadium compounds

EPA lowered the reporting threshold for the following eighteen chemicals and chemical categories that meet the criteria for persistence and bioaccumulation:

Aldrin***
Benzo(g,h,i)perylene**
Chlordane**
Dioxin and dioxin-like compounds*
Heptachlor**
Hexachlorobenzene**
Isodrin**
Methoxychlor***
Octachlorostyrene**
Pendimethalin***
Pentachlorobenzene**
Polycyclic aromatic compounds category***
Polychlorinated biphenyl (PCBs)**
Tetrabromobisphenol A***
Toxaphene**
Trifluralin***
Mercury**
Mercury compounds**

* Threshold lowered to 0.1 gram
** Threshold lowered to 10 pounds
*** Threshold lowered to 100 pounds

In addition to lowering the threshold for PBTs, the final rule eliminated the *de minimus* exemption. Initially, EPA believed that small quantities would not have a significant impact on threshold exceedances and promulgated this exemption. However, since small quantities of PBT chemicals may significantly contribute to the lower thresholds, the exemption does not apply to PBTs. Additionally, the use of Form A (see Section 1.1) for reporting PBTs was eliminated. The form would not provide adequate release/transfer information for performing data analysis since it merely certifies releases and/or transfers of less than 500 pounds. Furthermore, the rule eliminated the use of ranges in reporting on-site releases and off-site transfers for PBTs. The use of the ranges could misrepresent data accuracy for PBT chemicals because the low or the high end range number may not be that close to the estimated value.

Lead and Lead Compounds

In 1999, EPA proposed a rule to lower the reporting thresholds for lead and lead compounds. The final rule was published in the *Federal Register* on January 4, 2001. EPA believes that lead and lead compounds are PBT chemicals, and that the lower threshold should apply. The rule included the following: a) a limitation on the reporting of lead when contained in certain alloys, b) elimination of the *de minimus* exemptions for lead and lead compounds, c) elimination of the alternate threshold and Form A eligibility for lead and lead compounds, and d) elimination of range reporting for on-site releases and off-site transfers for further waste management. Additional information for the final rule and reporting under EPCRA section 313 is accessible from the EPA website: www.epa.gov/tri or from the EPCRA Call Center. The toll free number is 1-800-424-9346. In the Washington, DC area, the number is 703-412-9810, or TDD at 1-800-553-7672.

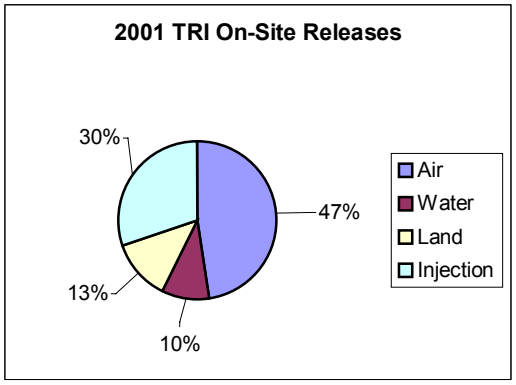
Chapter 2-2001 TRI Data in Louisiana

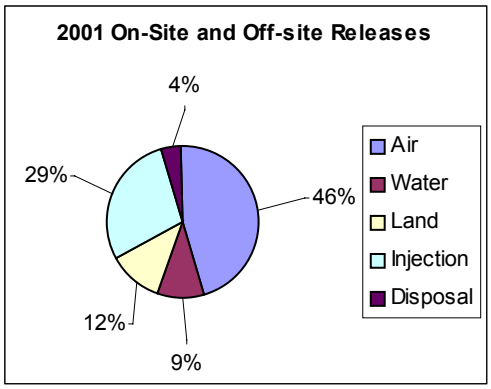
2.0 Introduction

The enactment of the EPCRA Act in 1986 has played an essential role in heightening the environmental awareness of Louisiana's citizens. Citizens are increasingly becoming more involved in environmental issues that may impact their daily lives, and are taking advantage of the wealth of environmental information available through various sources. TRI data is available through various publications and websites, supported at the local, state and national level.

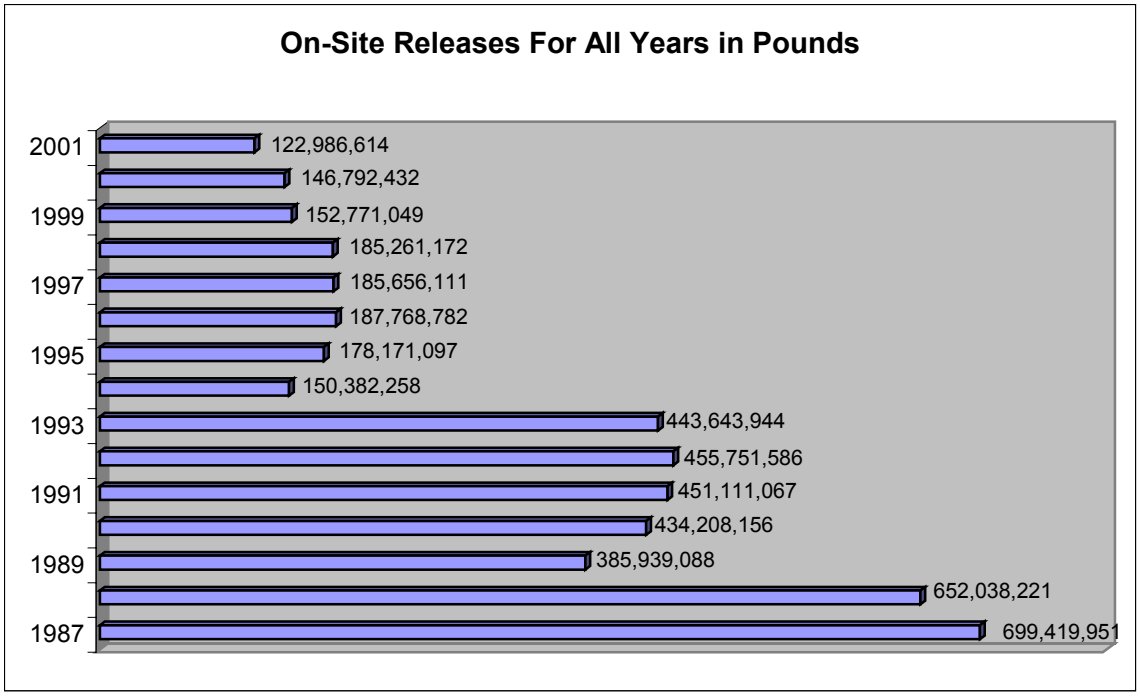
2.1 Release Totals

In 2001, 367 Louisiana facilities submitted 3,126 forms, including 321 certification statements, for 261 chemicals. Data submitted also included a fourth year for 35 new industries, and a second year of release information for PBT chemicals. Total releases for the state included air, water discharges, land discharges, and underground injection. There were 123,036,425 pounds of total releases reported in 2001; air releases represented 47 % (58,367,954 pounds), water releases contributed 10% (11,908,447 pounds), land releases represented 13% (15,647,182 pounds), and underground injection contributed 30% (37,112,860 pounds). All data presented for underground injection refers to Class I wells (see Section 1.2). Off-site releases included transfers sent off-site for disposal. Off-site transfers for disposal totaled 5,643,978 pounds.





Graph 1-2001 TRI Releases On-Site. This graph shows the media and the percent each media contributed to the total TRI releases. Air, water, land, and underground injection are the only media included in this graph. **Graph 2-2001 On-Site and Off-Site Releases (Transfers for Disposal).** This graph shows the media and the percent each media contributed to the total TRI releases for 2001. Off-site Transfers for Disposal have been included in this graph as well.



Graph 3-On-Site Releases For All Years. This graph displays trend data for TRI total releases. Data included all TRI facilities and chemicals, except dioxins. Air, water, land, and underground injection are included in this total. From 1987-2001, there was an 82% decrease in TRI total releases. There was a 16% decrease since 2000. Since 2000, air releases have decreased by 59%, water releases have decreased by 93%, and underground injections have decreased by 90%. Land releases have increased by 89%.

2.2 Core Chemicals

Since 1987, many chemicals and chemical categories have been added or removed from the TRI list. The subset, **Core Chemicals**, represents the group of chemicals that have been consistently reported throughout all of the reporting years. For Reporting Year 2001, 101,958,391 pounds of total releases were reported for the **Core Chemicals**. Air releases were 53% (54,075,890 pounds) of the total releases, water releases were 2% (2,106,916 pounds), land releases were 15% (14,785,403 pounds), and injection releases were 30% (30,990,182 pounds). Since 1995, **Core Chemical** releases have decreased by 35%, from 157,425,390 pounds to 101,958,391 pounds.

	1995	1996	1997	1998	1999	2000	2001
TOTAL	157,425,390	167,516,064	165,656,441	165,137,794	127,685,207	118,182,144	101,958,391
AIR	80,432,096	79,982,927	69,431,708	72,279,162	64,728,779	63,893,212	54,075,890
WATER	21,802,277	29,752,983	38,322,008	29,509,499	1,827,635	1,895,616	2,106,916
LAND	4,792,032	5,859,805	8,333,471	15,590,533	16,912,212	12,313,676	14,785,403
INJECT.	50,398,985	51,920,349	49,569,224	47,839,600	44,216,581	40,079,640	30,990,182

Chart 1-Trend Table for Core Chemicals in Pounds. The chart shows trend data for the core chemicals from 1995-2001. The data is comprised of totals from air, water, land, and injection.

2.3 1995 Chemicals

In 1995, EPA added 313 new chemicals and chemical categories to the TRI program, almost doubling the TRI chemical list. Hence, these chemicals belong to the subset **1995 Chemicals**. Since this addition, there are approximately 640 chemicals and chemical categories on the TRI list. In Louisiana, 48 of the subset **1995 Chemicals** were reported for 2001. As with the **Core Chemicals** subset, year-to-year comparisons of the **1995 Chemicals** provide the most accurate presentation of the data. In 2001, the **1995 Chemicals** total releases were 21,028,222 pounds. Air releases were 20% (4,241,064 pounds) of the total, water releases were 47%, (9,802,702) pounds land releases were 4% (861,779 pounds), and underground injections were 29% (6,122,677 pounds). Since 1995, **1995 Chemicals** releases have increased by 1.3%, from 20,745,707 pounds to 21,028,222 pounds.

	1995	1996	1997	1998	1999	2000	2001
TOTAL	20,745,707	20,252,718	19,999,670	20,123,378	25,085,842	28,610,287	21,028,222
AIR	5,168,875	4,458,355	4,554,156	5,470,149	5,029,876	5,338,504	4,241,064
WATER	7,983,034	8,799,107	8,689,592	7,690,583	13,730,633	11,005,917	9,802,702
LAND	66,699	40,869	1,083	943,529	503,633	641,545	861,779
INJECT.	7,527,099	6,954,387	6,754,839	6,019,117	5,821,700	11,624,319	6,122,676

Chart 2-Trend Table for 1995 Chemicals in Pounds. The proceeding table shows trend data for the 1995 Chemicals from 1995-2001. The data is comprised of totals from air, water, land, and underground injection.

2.4 New Industries vs. Original Industries

In addition to the data subsets on the previous pages, another subset of data was added. **New SIC's** represents new facilities that reported for the first time in 1998, based on their Standard Industrial Classification Codes. In 2001, **New SIC's** reported total releases of 18,125,126 pounds. The New SIC total releases were 15% of all TRI releases, as opposed to 2000, where **New SIC's** were 16% of all TRI releases. For reporting year 2001, air releases were 22% (3,962,100 pounds) of the **New SIC** releases, water releases were16% (2,914,733 pounds), land releases were 42% (7,612,782 pounds), and underground injection releases were 20% (3,635,511 pounds). There was a 24% (5,672,033 pounds) decrease for **New SIC** total releases from 2000-2001. The new SIC codes reported were 4911 (Electric Generators), 4953 (Commercial Disposal Facilities), 5169 (Chemical and Allied Products), 5171 (Petroleum Bulk Stations and Terminals), and 7389 (Solvent Recovery Services).

New SIC	Air	Water	Land	Injection	Total New SIC
4911, 4953	1,389,688	72,179	7,608,851	3,635,511	18,125,126
5169, 5171	2,572,410	2,842,554	3,931	0	
7389	2	0	0	0	
Total by Media	3,962,100	2,914,733	7,612,782	3,635,511	

Chart 3-New SIC's for 2001. The chart displays each new SIC code, its contribution to air, water, land, and underground injection releases, totals for all new SIC's by media, and a grand total for all **New SIC** releases. All numbers are in units of pounds.

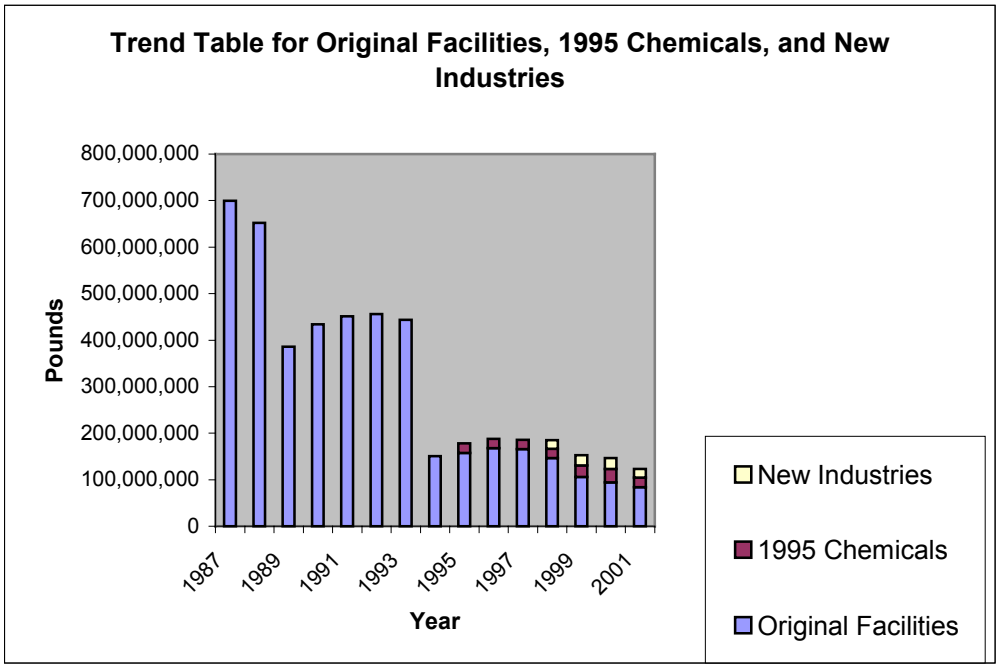
The **Original Industries** are the initial manufacturing sectors that have been reporting to the TRI since 1987. As in previous years, SIC code 28 (Chemical and Allied Products Manufacturing) is the predominant reporting sector in Louisiana. Approximately 45% of all facilities reported under this sector. The next two industry sectors, SIC code 34 (Fabricated Metal Products), and SIC code 24 (Lumber and Wood Products except, Furniture) had approximately 11% and 9% respectively, of all reporters for 2001. These sectors were followed closely by SIC code 29 and 20 (see Chart 6). Based on total releases, the top three sectors are, respectively, SIC codes 28, 26 (Paper and Allied Products), and 29 (Petroleum Refining and Related Interests).

SIC	RANK	# of FACs	TOTAL AIR RELEASES	SURFACE WATER	TOTAL ON-SITE LAND	INJECTION	TOTAL
20	6	14	537,230	1,306,393	0	0	1,843,623
24	7	28	805,596	839	798	0	807,233
25	17	1	2,516	0	0	0	2,516
26	2	13	16,613,797	735,408	2,499,293	0	19,848,498
28	1	140	27,331,169	5,480,621	4,678,188	33,476,841	70,966,820
29	5	26	4,313,611	772,588	10,919	508	5,097,626
30	11	12	315,561	2	0	0	315,563
32	16	7	20,380	0	0	0	20,380
33	12	13	140,621	43,365	33,138	0	217,124
34	9	33	377,775	1,583	97,050	0	476,408
35	13	6	91,123	1	0	0	91,124
36	15	6	56,386	130	0	0	56,516
37	10	13	460,962	0	84	0	461,046
38	18	1	20	6	0	0	26
	TOTAL	**313**	**51,066,747**	**8,340,936**	**7,319,470**	**33,477,349**	**100,204,503**

Chart 5-Original Industries Releases 2001. This chart displays the SIC codes for the original industries, the rank of each sector (when its total releases were compared to the releases of all other sectors), the number of facilities reporting to each sector, the releases to air, water, land and underground injection, media totals, and a grand release total for each sector.

SIC Code	Definition
20	Food and Kindred Products
21	Tobacco Products
22	Textile Mills Products
23	Apparel and Other Finished Products Made from Fabrics
24	Lumber and Wood Products, Except Furniture
25	Furniture and Fixtures
26	Paper and Allied Products
27	Printing, Publishing, and Allied Products
28	Chemicals and Allied Products
29	Petroleum Refining and Related Industries
30	Rubber and Miscellaneous Plastic Products
31	Leather and Leather Products
32	Stone, Clay, Glass and Concrete Products
33	Primary Metals Industries
34	Fabricated Metals Products, Except Machinery and Components Made from Fabrics and Other Similar Products
35	Industrial and Commercial Machinery and Computer Equipment
36	Electronic and Other Electrical Equipment and Components
37	Transportation Equipment
38	Measuring, Analyzing and Controlling Instruments, Photographic, Medical and Optical Goods, Watches and Clocks
39	Miscellaneous Manufacturing Industries

Chart 6-Breakdown of SIC codes. The various SIC codes and their subsequent descriptions are presented in this chart.



Graph 4-Trend Table for Original Facilities, 1995 Chemicals, and New Industries. This graph shows trend data for the TRI Original Facilities, 1995 Chemicals, and New Industries, and their contribution to TRI total releases. Data is included from air, water, land, and underground injection.

White Pelicans on the lake at Springhill. Photo taken from the DEQ publication,*Louisiana Environmentalist Magazine,* March-April, 1994.

2.5 Total Releases

Chart 7 - 2001 Top 30 Facilities Ranked by Total Releases in Pounds

RANK	TOTAL	FACILITY	PARISH
1	10,986,025	CYTEC INDUSTRIES, INC.	JEFFERSON
2	10,426,296	MONSANTO COMPANY	ST. CHARLES
3	5,784,462	RUBICON, INC.	ASCENSION
4	5,469,102	CF INDUSTRIES, INC.	ASCENSION
5	5,397,602	ANGUS CHEM	OUACHITA
6	5,170,024	INTERNATIONAL PAPER, MANSFIELD	DE SOTO
7	3,876,335	EXXON MOBIL BATON ROUGE REFINERY	EAST BATON ROUGE
8	3,635,743	LOUISIANA PIGMENT COMPANY L.P.	CALCASIEU
9	3,635,573	SAFETY KLEEN, INC	IBERVILLE
10	3,358,054	CHEMICAL WASTE MANAGEMENT	CALCASIEU
11	3,194,864	CLECO CORPORATION - DOLET HILL	DE SOTO
12	3,094,101	TRIAD NITROGEN, INC.	ASCENSION
13	2,955,193	RIVERWOOD INT. - PLANT #31	OUACHITA
14	2,248,150	INTERNATIONAL PAPER - LA MILL	MOREHOUSE
15	2,105,493	THE DOW CHEMICAL COMPANY	IBERVILLE
16	2,061,588	BASF CORPORATION	ASCENSION
17	2,006,592	EXXON CHEMICAL, BATON ROUGE CHEMICAL	EAST BATON ROUGE
18	1,999,819	BOISE CASCADE CORPORATION	BEAUREGARD
19	1,901,930	BIG CAJUN 2	POINTE COUPEE
20	1,849,467	GAYLORD CONTAINER CORPORATION	WASHINGTON
21	1,713,915	CROMPTON MFTG. - GEISMAR	ASCENSION
22	1,708,513	PCS NITROGEN FERTILIZER L.P.	ASCENSION
23	1,580,803	FIRESTONE POLYMERS	CALCASIEU
24	1,553,241	CITGO PETROLEUM CORPORATION	CALCASIEU
25	1,296,779	GEORGIA PACIFIC CORP. - PORT HUDSON	EAST BATON ROUGE
26	1,262,310	HONEYWELL INTERNATIONAL, INC.	EAST BATON ROUGE
27	1,205,168	STONE CONTAINER CORP	JACKSON
28	1,201,687	INTERNATIONAL PAPER, PINEVILLE	RAPIDES
29	1,189,926	WILLAMETTE INDUSTRIES, INC.	NATCHITOCHES
30	1,014,269	KAISER ALUMINUM AND CHEMICAL	ST. JAMES

Chart 8 - 2001 Parish Ranking by Total Releases in Pounds

RANK	# FACS	TOTAL	PARISH
1	19	22,187,306	ASCENSION
2	22	14,884,622	ST. CHARLES
3	32	13,152,333	CALCASIEU
4	23	11,482,815	JEFFERSON
5	22	9,760,550	EAST BATON ROUGE
6	12	8,484,915	OUACHITA
7	7	8,423,369	DE SOTO
8	18	7,520,184	IBERVILLE
9	9	2,966,349	ST. JAMES
10	1	2,248,150	MOREHOUSE
11	4	2,072,961	BEAUREGARD
12	3	1,903,948	POINTE COUPEE
13	3	1,856,882	WASHINGTON
14	24	1,832,084	CADDO
15	6	1,793,857	NATCHITOCHES
16	11	1,639,317	ST. JOHN THE BAPTIST
17	12	1,538,758	RAPIDES
18	2	1,384,303	ST. BERNARD
19	1	1,205,168	JACKSON
20	9	980,253	PLAQUEMINES
21	15	919,804	WEST BATON ROUGE
22	2	845,616	UNION
23	1	729,174	WEST FELICIANA
24	2	605,702	VERNON
25	7	328,002	LINCOLN
26	1	310,290	GRANT
27	5	295,949	TANGIPAHOA
28	9	270,176	ST. MARY
29	7	201,316	ORLEANS
30	9	152,882	IBERIA
31	2	140,883	EVANGELINE
32	5	122,522	WEBSTER
33	4	120,562	ASSUMPTION
34	2	115,042	TERREBONNE
35	4	113,335	ST. LANDRY
36	7	97,393	LIVINGSTON
37	6	59,397	BOSSIER
38	1	47,000	ST. MARTIN
39	2	36,223	LA SALLE
40	5	26,533	LAFOURCHE
41	1	25,946	CAMERON
42	3	23,026	VERMILION
43	4	20,952	SABINE
44	3	17,956	BIENVILLE
45	9	11,991	LAFAYETTE
46	1	6,177	FRANKLIN
47	2	5,464	ALLEN
48	5	5,346	ST. TAMMANY
49	1	4,823	ST. HELENA
50	3	4,589	WINN
51	3	2,879	ACADIA
52	2	1,500	MADISON
53	1	21	RED RIVER
54	1	15	AVOYELLES
55	1	7	RICHLAND

2.6 Air Releases

Chart 9 - 2001 Top 30 Facilities Ranked by Air Releases in Pounds

RANK	AIR	FACILITY	PARISH
1	4,782,374	CF INDUSTRIES, INC.	ASCENSION
2	4,095,776	INTERNATIONAL PAPER, MANSFIELD	DE SOTO
3	3,046,705	TRIAD NITROGEN, INC.	ASCENSION
4	2,587,450	RIVERWOOD INT. - PLANT #31	OUACHITA
5	1,834,645	BOISE CASCADE CORPORATION	BEAUREGARD
6	1,776,743	GAYLORD CONTAINER CORPORATION	WASHINGTON
7	1,736,502	INTERNATIONAL PAPER - LA MILL	MOREHOUSE
8	1,723,162	EXXON CHEMICAL, BATON ROUGE CHEMICALS	EAST BATON ROUGE
9	1,580,803	FIRESTONE POLYMERS	CALCASIEU
10	1,405,294	CITGO PETROLEUM CORPORATION	CALCASIEU
11	1,338,339	EXXON MOBIL BATON ROUGE REFINERY	EAST BATON ROUGE
12	1,296,372	THE DOW CHEMICAL COMPANY	IBERVILLE
13	1,242,531	HONEYWELL INTERNATIONAL, INC.	EAST BATON ROUGE
14	1,183,256	STONE CONTAINER CORP	JACKSON
15	1,017,798	GEORGIA PACIFIC CORP. - PORT HUDSON	EAST BATON ROUGE
16	971,567	CALUMET LUBRICANTS CO SHREVEPORT	CADDO
17	968,689	PCS NITROGEN FERTILIZER, L.P.	ASCENSION
18	966,029	INTERNATIONAL PAPER-PINEVILLE	RAPIDES
19	869,533	TOSCO REFINING CO.	PLAQUEMINE
20	863,409	WILLAMETTE INDUSTRIES INC.	NATCHITOCH
21	861,053	EXXON CHEMICAL COMPANY	EAST BATON ROUGE
22	729,601	CROMPTON MFTG. - GEISMAR	ASCENSION
23	722,548	BIG CAJUN 2	POINTE COUPEE
24	713,114	CHALMETTE REFINING L.L.C.	ST. BERNARD
25	701,596	MOTIVA ENTERPRISES L.L.C.	ST. JAMES
26	698,189	IMC PHOSPHATES - FAUSTINA	ST. JAMES
27	680,609	SHELL NORCO CHEMICAL PLANT - EAST	ST. CHARLES
28	671,509	BASF CORPORATION	ASCENSION
29	668,712	UNION CARBIDE CORPORATION, TAFT	ST. CHARLES
30	605,985	DSM COPOLYMER, INC.	WEST BATON ROUGE

Chart 10 - 2001 Parish Ranking by Air Releases in Pounds

RANK	# FACS	AIR	PARISH
1	19	12,995,295	ASCENSION
2	22	6,599,107	EAST BATON ROUGE
3	32	5,327,468	CALCASIEU
4	7	4,417,912	DE SOTO
5	22	3,554,395	ST. CHARLES
6	12	2,823,697	OUACHITA
7	18	2,463,882	IBERVILLE
8	4	1,904,233	BEAUREGARD
9	3	1,784,158	WASHINGTON
10	1	1,736,502	MOREHOUSE
11	9	1,632,509	ST. JAMES
12	24	1,417,159	CADDO
13	1	1,183,256	JACKSON
14	12	1,103,556	RAPIDES
15	2	1,063,620	ST. BERNARD
16	6	991,675	NATCHITOCHES
17	9	904,469	PLAQUEMINES
18	15	863,199	WEST BATON ROUGE
19	23	853,862	JEFFERSON
20	11	761,070	ST. JOHN THE BAPTIST
21	3	724,566	POINTE COUPEE
22	1	550,738	WEST FELICIANA
23	7	328,002	LINCOLN
24	1	307,585	GRANT
25	9	267,815	ST. MARY
26	5	207,051	TANGIPAHOA
27	7	198,426	ORLEANS
28	2	198,393	VERNON
29	9	152,876	IBERIA
30	2	140,882	EVANGELINE
31	5	122,522	WEBSTER
32	2	115,042	TERREBONNE
33	4	114,552	ASSUMPTION
34	2	95,619	UNION
35	4	77,294	ST. LANDRY
36	6	58,689	BOSSIER
37	1	47,000	ST. MARTIN
38	7	42,136	LIVINGSTON
39	2	35,829	LA SALLE
40	1	25,946	CAMERON
41	5	25,333	LAFOURCHE
42	3	23,026	VERMILION
43	4	20,921	SABINE
44	3	17,951	BIENVILLE
45	9	11,990	LAFAYETTE
46	5	5,321	ST. TAMMANY
47	1	4,816	ST. HELENA
48	3	4,339	WINN
49	2	4,208	ALLEN
50	1	3,156	FRANKLIN
51	3	2,879	ACADIA
52	2	1.000	MADISON
53	1	21	RED RIVER
54	1	7	RICHLAND
55	1	0	AVOYELLES

2.7 Water Releases

Chart 11 - 2001 Top 30 Facilities Ranked by Water Releases in Pounds

RANK	WATER	FACILITY	PARISH
1	2,537,994	EXXON MOBIL BATON ROUGE REFINERY	EAST BATON ROUGE
2	1,390,065	BASF CORPORATION	ASCENSION
3	749,997	CONAGRA BROILER COMPANY	UNION
4	721,826	PCS NITROGEN FERTILIZER, L.P.	ASCENSION
5	686,728	CF INDUSTRIES, INC.	ASCENSION
6	485,923	SYNGENTA	IBERVILLE
7	475,149	CONAGRA BROILER COMPANY	NATCHITOCHES
8	424,576	ANGUS CHEM	OUACHITA
9	407,309	US DOD US ARMY JRTC	VERNON
10	293,210	MONSANTO COMPANY	ST. CHARLES
11	283,431	EXXON CHEMICAL, BATON ROUGE	EAST BATON ROUGE
12	242,763	CONOCO LAKE CHARLES REFINERY	CALCASIEU
13	235,833	CHALMETTE REFINING L.L.C.	ST. BERNARD
14	217,525	PPG INDUSTRIES, INC.	CALCASIEU
15	216,775	MOTIVA ENTERPRISES LLC-CONVENT	ST. JAMES
16	216,642	LYONDELL CHEMICAL	CALCASIEU
17	205,123	UNION CARBIDE CORPORATION, TAFT	ST. CHARLES
18	199,003	MARATHON ASHLAND PETROLEUM L.L.C.	ST. JOHN THE BAPTIST
19	188,666	GEORGIA PACIFIC CORP. - PORT HUDSON	EAST BATON ROUGE
20	131,575	CITGO PETROLEUM CORPORATION	CALCASIEU
21	119,905	INTERNATIONAL PAPER-PINEVILLE	RAPIDES
22	115,063	THE DOW CHEMICAL COMPANY	IBERVILLE
23	95,954	SHELL CHEMICAL COMPANY	ASCENSION
24	95,836	INTERNATIONAL PAPER - LA MILL	MOREHOUSE
25	92,828	GEORGIA GULF CORPORATION	IBERVILLE
26	88,387	TEMBEC USA L.L.C.	WEST FELICIANA
27	84,850	MURPHY OIL USA, INC.	ST. BERNARD
28	81,120	SANDERSON FARMS, INC.	TANGIPAHOA
29	72,724	GAYLORD CONTAINER CORPORATION	WASHINGTON
30	67,294	BOISE CASCADE CORPORATION	BEAUREGARD

Chart 12 - 2001 Parish Ranking by Water Releases in Pounds

RANK	# FACS	WATER	PARISH
1	22	3,045,266	EAST BATON ROUGE
2	19	2,986,626	ASCENSION
3	32	861,587	CALCASIEU
4	2	749,997	UNION
5	18	718,453	IBERVILLE
6	22	542,315	ST. CHARLES
7	6	486,197	NATCHITOCHES
8	12	464,267	OUACHITA
9	2	407,309	VERNON
10	2	320,683	ST. BERNARD
11	9	319,381	ST. JAMES
12	11	229,364	ST. JOHN THE BAPTIST
13	12	130,513	RAPIDES
14	1	95,836	MOREHOUSE
15	1	88,387	WEST FELICIANA
16	5	81,120	TANGIPAHOA
17	7	75,714	DE SOTO
18	3	72,724	WASHINGTON
19	4	69,156	BEAUREGARD
20	9	57,254	PLAQUEMINES
21	4	35,581	ST. LANDRY
22	23	25,117	JEFFERSON
23	1	21,912	JACKSON
24	15	9,361	WEST BATON ROUGE
25	3	4,000	POINTE COUPEE
26	7	2,890	ORLEANS
27	1	2,705	GRANT
28	9	2,276	ST. MARY
29	5	1,200	LAFOURCHE
30	24	687	CADDO
31	7	557	LIVINGSTON
32	2	500	MADISON
33	3	250	WINN
34	6	200	BOSSIER
35	2	173	LA SALLE
36	5	25	ST. TAMMANY
37	1	15	AVOYELLES
38	1	7	ST. HELENA
39	9	6	IBERIA
40	3	5	BIENVILLE
41	9	1	LAFAYETTE
42	3	0	ACADIA
42	2	0	ALLEN
42	4	0	ASSUMPTION
42	1	0	CAMERON
42	2	0	EVANGELINE
42	1	0	FRANKLIN
42	7	0	LINCOLN
42	1	0	RED RIVER
42	1	0	RICHLAND
42	4	0	SABINE
42	1	0	ST. MARTIN
42	2	0	TERREBONNE
42	3	0	VERMILION
42	5	0	WEBSTER

2.8 Land Releases

Chart 13 - 2001 Top 30 Facilities Ranked by Releases to Land in Pounds

RANK	LAND	FACILITY	PARISH
1	3,603,604	LOUISIANA PIGMENT COMPANY L.P.	CALCASIEU
2	3,343,106	CHEMICAL WASTE MANAGEMENT LAKE	CALCASIEU
3	2,901,427	CLECO CORPORATION - DOLET HILL	DE SOTO
4	1,175,382	BIG CAJUN 2	POINTE COUPEE
5	1,028,316	INTERNATIONAL PAPER, MANSFIELD	DE SOTO
6	1,010,350	KAISER ALUMINUM AND CHEMICAL	ST. JAMES
7	694,058	THE DOW CHEMICAL COMPANY	IBERVILLE
8	415,812	INTERNATIONAL PAPER - LA MILL	MOREHOUSE
9	345,239	RIVERWOOD INT. - PLANT #31	OUACHITA
10	315,469	WILLAMETTE INDUSTRIES, INC.	NATCHITOCHES
11	188,936	RODEMACHER POWER STATION	RAPIDES
12	115,753	INTERNATIONAL PAPER - PINEVILLE	RAPIDES
13	97,880	BOISE CASCADE CORPORATION	BEAUREGARD
14	90,314	GEORGIA PACIFIC CORP. - PORT HUDSON	EAST BATON ROUGE
15	90,049	TEMBEC USA LLC	WEST FELICIANA
16	54,700	SHAW SUNLAND FABRICATORS, INC.	LIVINGSTON
17	28,300	SHAW SSS FABRICATORS, INC	WEST BATON ROUGE
18	25,360	EXIDE CORPORATION - BR SMELTER	EAST BATON ROUGE
19	18,944	DSM COPOLYMER, INC.	WEST BATON ROUGE
20	17,998	PCS NITROGEN FERTILIZER L.P.	ASCENSION
21	16,372	CITGO PETROLEUM CORPORATION	CALCASIEU
22	10,013	VULCAN MATERIALS COMPANY	ASCENSION
23	7,778	AMITE FOUNDRY & MACHINE, INC.	TANGIPAHOA
24	6,200	SHAW PROCESS FABRICATORS	OUACHITA
25	6,010	J. RAY MCDERMOTT, INC.	ASSUMPTION
26	4,688	PENNZOIL-QUAKER STATE COMPANY	CADDO
27	4,500	INEOS OXIDE COMPANY	IBERVILLE
28	3,927	MOTIVA ENTERPRISES L.L.C.	ST. JAMES
29	3,764	ORMET CORPORATION	ASCENSION
30	3,754	ORION REFINING CORPORATION	ST. CHARLES

Chart 14 - 2001 Parish Ranking by Land Releases in Pounds

RANK	# FACS	LAND	PARISH
1	32	6,963,278	CALCASIEU
2	7	3,929,743	DE SOTO
3	3	1,175,382	POINTE COUPEE
4	9	1,014,458	ST. JAMES
5	18	700,639	IBERVILLE
6	1	415,812	MOREHOUSE
7	12	351,799	OUACHITA
8	6	315,986	NATCHITOCHES
9	12	304,689	RAPIDES
10	22	116,176	EAST BATON ROUGE
11	4	99,572	BEAUREGARD
12	1	90,049	WEST FELICIANA
13	7	54,700	LIVINGSTON
14	15	47,244	WEST BATON ROUGE
15	19	33,632	ASCENSION
16	22	10,334	ST. CHARLES
17	5	7,778	TANGIPAHOA
18	4	6,010	ASSUMPTION
19	24	4,688	CADDO
20	1	3,021	FRANKLIN
21	2	1,256	ALLEN
22	4	460	ST. LANDRY
23	2	221	LA SALLE
24	9	136	PLAQUEMINES
25	9	86	ST. MARY
26	4	31	SABINE
27	11	2	ST. JOHN THE BAPTIST
28	3	0	ACADIA
28	1	0	AVOYELLES
28	3	0	BIENVILLE
28	6	0	BOSSIER
28	1	0	CAMERON
28	2	0	EVANGELINE
28	1	0	GRANT
28	9	0	IBERIA
28	1	0	JACKSON
28	23	0	JEFFERSON
28	9	0	LAFAYETTE
28	5	0	LAFOURCHE
28	7	0	LINCOLN
28	2	0	MADISON
28	7	0	ORLEANS
28	1	0	RED RIVER
28	1	0	RICHLAND
28	2	0	ST. BERNARD
28	1	0	ST. HELENA
28	1	0	ST. MARTIN
28	5	0	ST. TAMMANY
28	2	0	TERREBONNE
28	2	0	UNION
28	3	0	VERMILION
28	2	0	VERNON
28	3	0	WASHINGTON
28	5	0	WEBSTER
28	3	0	WINN

2.9 Underground Injection Releases

Chart 15 - 2001 Top 30 Facilities Ranked by Releases to Underground Injection in Pounds

RANK	INJECTION	FACILITY	PARISH
1	10,603,835	CYTEC INDUSTRIES, INC.	JEFFERSON
2	9,993,000	MONSANTO COMPANY	ST. CHARLES
3	5,187,400	RUBICON, INC.	ASCENSION
4	4,845,152	ANGUS CHEM	OUACHITA
5	3,635,511	SAFETY KLEEN INC	IBERVILLE
6	984,310	CROMPTON MFTG. - GEISMAR	ASCENSION
7	578,311	DU PONT PONTCHARTRAIN WORKS	ST. JOHN THE BAPTIST
8	503,577	CROMPTOM CORP. TAFT FACILITY	ST. CHARLES
9	409,550	UOP-SHREVEPORT PLANT	CADDO
10	281,000	OCCIDENTAL CHEMICAL CORP.	ST. CHARLES
11	70,570	DUPONT DOW ELASTOMERS L.L.C.	ST. JOHN THE BAPTIST
12	18,394	CHEVRON CHEMICAL COMPANY	PLAQUEMINES
13	1,699	SYGENTA	IBERVILLE
14	508	CALUMET LUBRICANTS CO.	BOSSIER
15	29	BORDEN CHEMICAL AND PLASTICS	ASCENSION
16	14	BASF CORPORATION	ASCENSION
17	0	ACME ROMAC, INC.	DE SOTO
17	0	ALAC NORCO ASU	ST. CHARLES
17	0	ALAC WESTLAKE ASU	CALCASIEU
17	0	AIR LIQUIDE	IBERVILLE
17	0	AIR PRODUCTS CHEM	IBERVILLE
17	0	AIR PRODUCTS	ORLEANS
17	0	BORDEN CHEM & PLASTICS	WEST BATON ROUGE
17	0	HONEYWELL INTERNATIONAL, INC.	ASCENSION
17	0	HONEYWELL INTERNATIONAL, INC.	EAST BATON ROUGE
17	0	IMC PHOSPHATES - FAUSTINA	ST. JAMES
17	0	IMC PHOSPHATES - TAFT	ST. CHARLES
17	0	IMC PHOSPHATES - UNCLE SAM	ST. JAMES
17	0	SCHERING-PLOUGH VETERINARY OP.	EAST BATON ROUGE
17	0	TOMAH RESERVE, INC.	ST. JOHN THE BAPTIST

Chart 16 – 2001 Parish Ranking by Underground Injection Releases in Pounds

RANK	# FACS	INJECTION	PARISH
1	22	10,777,577	ST. CHARLES
2	23	10,603,835	JEFFERSON
3	19	6,171,753	ASCENSION
4	12	4,845,152	OUACHITA
5	18	3,637,210	IBERVILLE
6	11	648,881	ST. JOHN THE BAPTIST
7	24	409,550	CADDO
8	9	18,394	PLAQUEMINES
9	6	508	BOSSIER
10	3	0	ACADIA
10	4	0	ALLEN
10	32	0	ASSUMPTION
10	7	0	AVOYELLES
10	2	0	BEAUREGARD
10	1	0	BIENVILLE
10	1	0	CALCASIEU
10	2	0	CAMERON
10	7	0	DE SOTO
10	7	0	EAST BATON ROUGE
10	5	0	EVANGELINE
10	9	0	FRANKLIN
10	2	0	GRANT
10	1	0	IBERIA
10	9	0	JACKSON
10	2	0	LAFAYETTE
10	2	0	LAFOURCHE
10	5	0	LA SALLE
10	5	0	LINCOLN
10	9	0	LIVINGSTON
10	1	0	MADISON
10	4	0	MOREHOUSE
10	9	0	NATCHITOCHES
10	1	0	ORLEANS
10	3	0	POINTE COUPEE
10	1	0	RAPIDES
10	15	0	RED RIVER
10	5	0	RICHLAND
10	3	0	SABINE
10	2	0	ST. BERNARD
10	3	0	ST. HELENA
10	2	0	ST. JAMES
10	4	0	ST. LANDRY
10	1	0	ST. MARTIN
10	1	0	ST. MARY
10	12	0	ST. TAMMANY
10	3	0	TANGIPAHOA
10	7	0	TERREBONNE
10	6	0	UNION
10	1	0	VERMILION
10	22	0	VERNON
10	1	0	WASHINGTON
10	4	0	WEBSTER
10	3	0	WEST BATON ROUGE
10	1	0	WEST FELICIANA
10	2	0	WINN

2.10 The Top 10 Chemicals

The top chemicals reported in Louisiana in 2001 are presented in Chart 17 below. As presented in the chart, the top three chemicals reported were ammonia, methanol, and nitrate compounds. Together, these three chemicals represented 40% of all chemicals reported for 2001. Ammonia was reported by 77 facilities, for a total of approximately 17 million pounds. 70% of the ammonia reported was releases to air. The primary industry that produces ammonia is the fertilizer industry. CF Industries, Triad Nitrogen, and Cytec Industries account for approximately 60% of the total ammonia reported in the state. Methanol was reported by 96 facilities, for a total of about 17 million pounds. 82% of methanol reported was releases to the air. The primary producers of methanol are in the pulpwood and paper industry. The top methanol releases came from International Paper in Mansfield, Riverwood International in West Monroe, and Boise Cascade in DeRidder. These facilities accounted for approximately 39% of the total methanol reported. Nitrate compounds were reported by 45 facilities for total releases of approximately 14 million pounds; 70% of the nitrate compounds reported were releases to water.

RANK	CHEMICAL	AIR	WATER	LAND	INJECTION	TOTAL	No. of FACS
1	AMMONIA	12,304,532	917,883	4,816	4,446,211	17,673,442	77
2	METHANOL	14,301,331	313,923	319,417	2,434,043	17,368,714	96
3	NITRATE CPDS	0	9,784,335	88,307	4,062,865	13,935,507	45
4	FORMALDEHYDE	382,942	28,912	2,825	8,863,245	9,277,924	34
5	MANGANESE	17,744	65,589	4,464,497	0	4,547,830	34
6	n-HEXANE	4,050,301	485	2,788	64,528	4,118,102	54
7	BARIUM CPDS	124,999	47,944	3,295,411	514	3,468,868	18
8	NITRIC ACID	177,334	0	4,500	3,081,902	3,263,736	19
9	ACETONITRILE	44,413	696	0	3,190,000	3,235,109	7
10	ETHYLENE	3,004,996	0	0	0	3,004,996	48

Chart 17-Top 10 Chemicals Reported in 2001. This chart illustrates the ten most abundant chemicals in 2001. The ranks of the chemicals, the releases to the various media in pounds, and the number of facilities reporting those chemicals are shown.

2.11 Special Interest Chemicals

In previous TRI reports, chemicals of special interest have been highlighted to provide some general health information on a few selected chemicals (see chart below). The chemicals highlighted for 2001 are ammonia and methanol. A summary of health hazards and effects that may result from exposure to these two toxic chemicals are listed on the preceding pages. The reader should be aware that several factors determine whether harmful health effects may occur after exposure to a toxic substance. These factors also help to determine the type and severity of those health effects. The effects of exposure to any hazardous substance depend on factors such as the amount of exposure, the duration of exposure, the route or pathway of exposure, toxicity of the chemical substance, presence of other chemicals, and personal traits and habits. For additional information, contact the Agency for Toxic Substances and Disease Registry (ATSDR) Information Center at 1-800-447-1544. The “Sources of Associated Information” section in this report provides additional resources for chemical information.

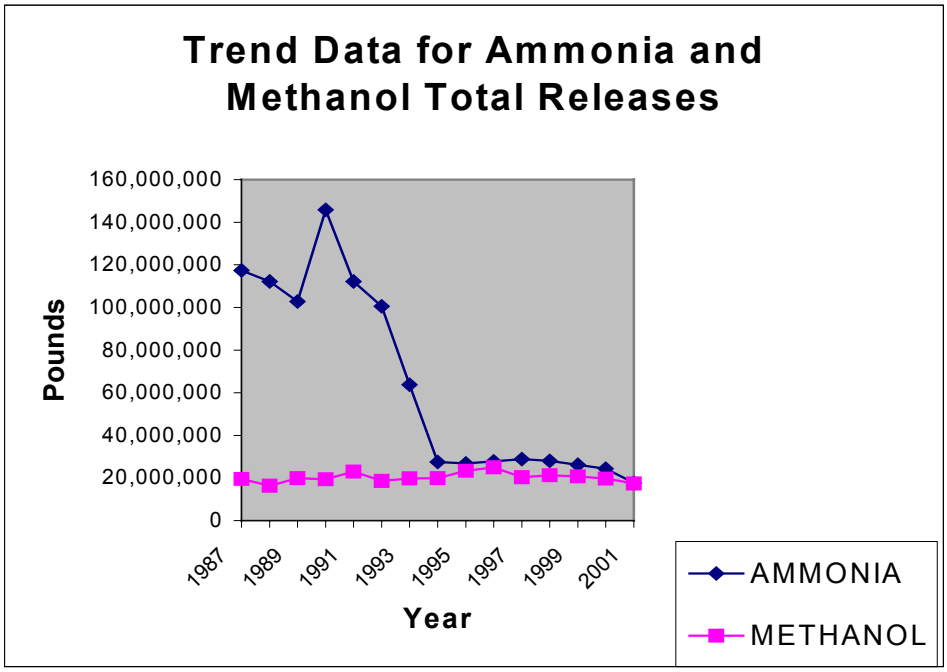
1988	1,2-Dichloride	Ammonia	Benzene	Chloroform
1989	Ethylene oxide	Toluene		Vinyl chloride
1990	Acetonitrile	Carbon tetrachloride		Lead/lead compounds
1991	Hexachlorobenzene	Hexachlorobutadiene		Mercury/mercury cpds
1992	Acetonitrile	Acrylamide	Arsenic	Formaldehyde
1993	1,2-Dichloroethane	Chlorine	Hydrogen Sulfide	Xylenes (mixed isomers)
1994	Tetrachloroethylene	1,3-Butadiene	Acetaldehyde	1,1,2,2-tetrachloroethane
1995	Carbon disulfide	Acrylic Acid	Ethylene	
1997	Acrylonitrile	Hexachlorobenzene	1,2-Dichloroethane	Mercury/mercury cpds
1998	Lead/lead compounds		PCB's	
1999	Mercury/mercury compounds		Dioxin and dioxin like compounds	

The chemicals selected for this year's report have been highlighted because they are the two most abundant chemicals released into Louisiana. The table below provides trend data for both ammonia and methanol, and the graph is a visual aide for the table.

Trend Data for Ammonia and Methanol

YEAR	AMMONIA	METHANOL
1987	117,380,461	19,571,638
1988	112,185,454	16,329,677
1989	102,773,193	19,972,275
1990	145,791,127	19,438,912
1991	112,202,429	23,031,197
1992	100,576,788	18,597,122
1993	63,712,895	19,823,957
1994	27,507,449	19,867,666
1995	26,803,977	23,305,594
1996	27,694,728	24,957,250
1997	28,810,010	20,275,298
1998	28,081,449	21,306,678
1999	26,140,633	20,760,521
2000	24,328,618	19,661,449
2001	17,625,476	17,368,714

Chart 19-Trend Data for Ammonia and Methanol. This chart provides trend data for the total releases (air, water, land, injection) of ammonia and methanol. There has been a downward trend for the releases of both chemicals. Ammonia releases have decreased 85% from 1987, and 28% since 2000. Methanol releases have decreased by 11% since 1987, and 12% since 2000.



Graph 5-Trend Data for Ammonia and Methanol.

Ammonia

What is ammonia? Is it naturally occurring or man made?

- Ammonia is a colorless gas with a very sharp odor. It is made both by nature and by humans. The amount produced by humans every year is almost equal to the amount produced by nature each year.
- Ammonia is produced naturally in the soil by bacteria, decaying plants and animals, and animal waste. Ammonia is essential for many biological processes.
- Most ammonia produced in chemical facilities is in liquid form. Almost 80% of manufactured ammonia in the United States is used to make fertilizer. The remaining is used in textiles, plastics, explosives, pulp and paper production, food and beverages, household cleaning products, refrigerants, and in smelling salts.

How does ammonia get into the environment? What happens after it enters the environment?

- Because it is a naturally occurring, ammonia is found throughout the environment in soil, air, and water.
- Ammonia is recycled naturally in the environment as part of the nitrogen cycle. It does not last long in the environment. Plants and bacteria rapidly take up ammonia from soil and water, and ammonia released to the air is rapidly removed by rain or snow, or by reactions with other chemicals.
- Ammonia does not build up in the food chain, but serves as a nutrient source for plants and bacteria.

How might I be exposed?

- Everyone is exposed to low levels of ammonia in air, food, soil, and water.
- Use of ammonia cleaning products and fertilizers can cause exposure through the air and through skin contact.
- You may also be exposed through leaks and spills from production plants, storage facilities, pipelines, tank trucks, and rail cars.

How can ammonia affect my health?

- Exposure to high concentrations in the air may cause severe burns to your skin, throat, and lungs.
- Exposure to low concentrations will cause coughing and throat irritation.
- If ammonia is swallowed in its liquid form, you could suffer severe burns to your mouth, throat, and stomach.
- Skin contact with liquid ammonia will also cause burns.
- There is no evidence that ammonia affects reproduction in humans or that it could cause cancer; EPA has not classified ammonia as a carcinogen.

How can I reduce the risks of exposure?

- Maintain adequate room ventilation and wear proper clothing and eye protection when using cleaners containing ammonia.
- Avoid entering fields when ammonia fertilizers are being applied.

METHANOL

What is methanol? Is it naturally occurring or man made?

- Methanol is a colorless liquid that is also known as methyl alcohol or wood alcohol.
- It occurs naturally in wood and volcanic gases. It is also a product of decaying organic material.
- The largest users of methanol sold in the United States are companies that make methyl t-butyl ether, a gasoline additive.
- Companies also use methanol to make chemicals such as formaldehyde, acetic acid, chloromethane, and methyl methacrylate.
- Methanol is also used as an additive in paint strippers, aerosol spray paints, wall paints, carburetor cleaners, car windshield washer products, and in some cases a gasoline substitute for use in automobiles and other small engines.

How does methanol get into the environment? What happens after it enters the environment?

- Methanol can be released into the environment through any product that contains the chemical.
- Most direct releases of methanol to the environment are to air, but releases also occur to water and soil.
- Methanol evaporates when exposed to air and dissolves completely when mixed with water. It can also evaporate from water and soil that is exposed to air. Once in the air, it breaks down to other chemicals.
- Microorganisms that live in water and in soil can also break down methanol. Because it is a liquid that does not bind well to soil, it may move through the ground and enter the groundwater.
- Plants and animals are not likely to store methanol.

How might I be exposed?

- Exposure to methanol can occur in the workplace or in the environment following releases to air, water, land, or groundwater.
- Methanol enters the body when breathed in with contaminated air, when consumed with contaminated food or water, or absorbed through skin contact.
- Humans may also be exposed when they use certain paint strippers, aerosol spray paints, wall paints, windshield wiper fluids, and small engine fuels.

How does methanol affect human health and the environment?

- Effects of methanol on human health and the environment depend on how much is present, and the length and frequency of exposure.
- Death can occur from drinking large amounts of methanol. Drinking smaller, non-lethal amounts of methanol, adversely affects the human nervous system.
- Effects range from headaches to incoordination similar to that associated with drunkenness. Delayed effects can result in sever abdominal, leg, and back pain.

- Workers repeatedly exposed to methanol have suffered from symptoms ranging from headaches to sleep disorders and gastrointestinal problems to optic nerve damage.
- Methanol by itself is not likely to cause environmental harm at levels normally found in the environment, but can contribute to the formation of petrochemical smog when it reacts with other volatile organic substances in air.

How can I reduce the risks of exposure?

- Maintain adequate room ventilation and wear proper clothing and eye protection when using products containing methanol.
- Have private drinking wells tested for methanol if large amounts of products that contain the chemical are or at one time were disposed of in the area.

2.12 PBT-Chemicals and Dioxins

PBT chemicals are a class of chemicals that are persistent, bioaccumulative, and toxic. These chemicals persist in the environment and accumulate in biological tissue over long periods of time. Chemicals with these characteristics may pose potential risks to human health and the environment. Thus, for reporting year 2000, EPA lowered the PBT reporting threshold to 10 pounds for manufacturing or processing, and 100 pounds for otherwise use. This lower threshold would ensure that the public had access to important information about the quantities of these chemicals entering their communities.

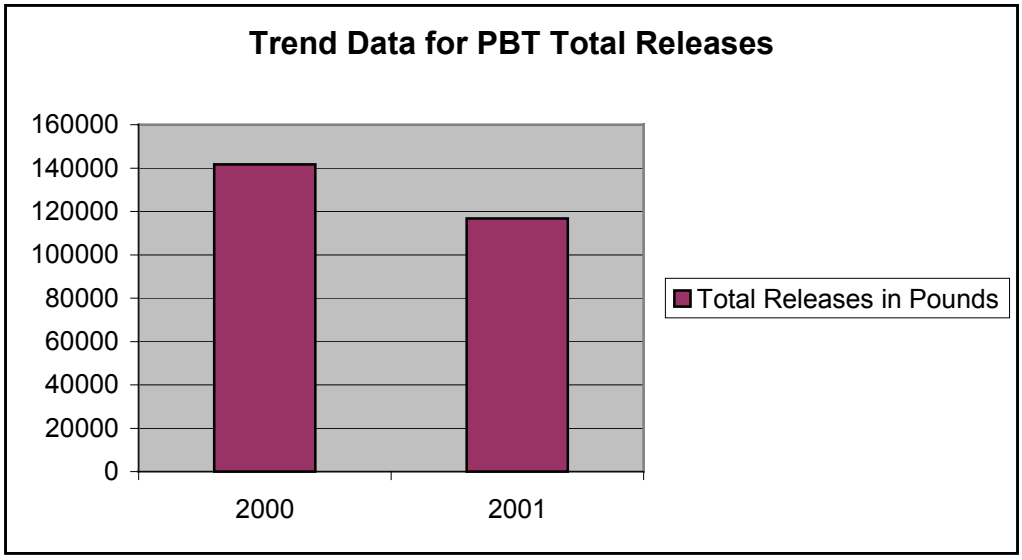
Reporting year 2000 was also the first year that facilities reported dioxin and dioxin-like compounds. Dioxins are a family of 75 chemicals commonly called chlorinated dioxins. TCDD (2,3,7,8-tetrachlorodibenzo-p-dioxin) is the most toxic chemical in this group. Dioxins naturally occur in small amounts, but most present day levels of dioxins were caused by anthropogenic sources. Dioxins are naturally released into the environment by forest fires and volcanoes, and are a by-product of certain industrial processes (pulp/paper bleaching, chemical manufacturing). They may also be released into the environment through emissions from the incineration of municipal waste, the burning of fuels (wood, coal, leaded gasoline), and improper disposal of hazardous waste. Dioxins can cause skin damage, and TCDD has caused laboratory animals to have cancer and birth defects from long-term exposure. The threshold limit for dioxins is 0.1 grams.

For reporting year 2001, both PBTs and dioxins showed a downward trend. PBT and dioxin totals are shown from reporting year 2000. It is important to realize that PBT totals are in pounds, and dioxin totals are in grams. The following charts and graphs show PBT and dioxin activity.

PBT Trend Data

	2000	2001
TOTAL	141,646.68	116,820.95
AIR	107,536.13	89,719.09
WATER	20,071.70	8,937.22
LAND	13,593.53	18,048.23
INJECT	445.32	116.41

Chart 20-PBT Trend Data. Chart 20 shows PBT releases from 2000 to 2001. There was a 17.5% decrease in PBT releases since 2000. In 2001, air releases were 77% of the total PBT releases, water releases were 8%, land releases werer 15%, and underground injection were less than 1%. PBTs accounted for less than 1% of all TRI releases in 2001.

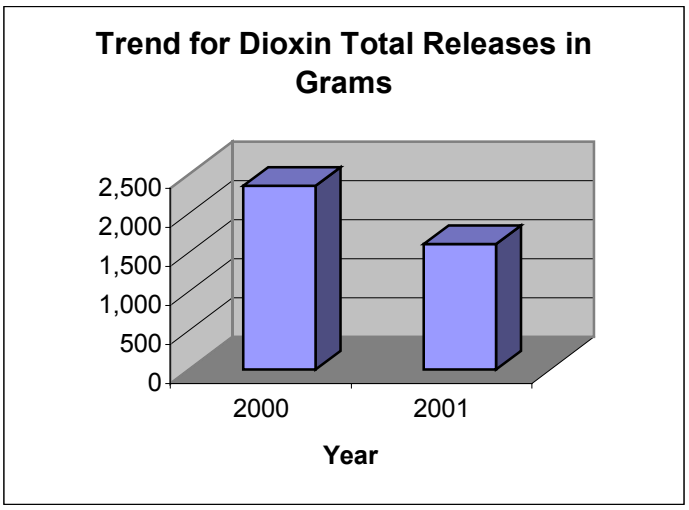


Graph 6-PBT Trend Data. Graph 6 is a visual aid for chart 20, and displays PBT total releases (air, water, land, injection) trends.

Trends for Dioxin Releases

	2000	2001
TOTAL	2,354.22	1,608.83
AIR	102.43	91.48
WATER	931.49	607.35
LAND	1,320.07	909.87
INJECT	0.22	0.13

Chart 21-Trends for Dioxin Releases. Chart 21 shows dioxin 2000 and 2001 data for air, water, land, injection, and total releases. Releases are in **grams**. There was a 32% decrease in total dioxin releases from 2000 to 2001. For 2001, air releases were 6% of the total dioxins released, water releases were 37%, land releases were 57%, and injection releases were less than 1%.



Graph 7- Trend for Dioxin Total Releases in Grams. The following graph is a visual aid for chart 21, and displays dioxin trend data for total releases (air, water, land, injection).

2001 Top 15 Facilities by Dioxin Total Releases in Grams

RANK	TOTAL	FACILITY	PARISH
1	1,026.24	THE DOW CHEMICAL COMPANY	IBERVILLE
2	217.53	LOUISIANA PIGMENT COMPANY L.P.	CALCASIEU
3	171.38	GEORGIA GULF CORPORATION	IBERVILLE
4	58.00	FORMOSA PLASTICS CORPORATION	EAST BATON ROUGE
5	43.41	PPG INDUSTRIES, INC.	CALCASIEU
6	29.81	DIS-TRAN PRODUCTS INC.	RAPIDES
7	14.37	OCCIDENTAL CHEMICAL CORP.	ST. CHARLES
8	8.20	CHEMICAL WASTE MANAGEMENT	CALCASIEU
9	7.44	GEORGIA PACIFIC CORP.	EAST BATON ROUGE
10	3.66	BORDEN CHEMICAL AND PLASTICS	ASCENSION
11	3.64	GEORGIA GULF LAKE CHARLES, L.L.C.	CALCASIEU
12	2.40	RESOLUTION PERFORMANCE PRODUCT	ST. CHARLES
13	1.65	COLFAX TREATING COMPANY	RAPIDES
14	1.45	INTERNATIONAL PAPER - LA MILL	MOREHOUSE
15	1.40	GAYLORD CONTAINER CORPORATION	WASHINGTON

Parish Rank by Dioxin Total Releases

RANK	# FACS	TOTAL	PARISH
1	4	1,197.84	IBERVILLE
2	10	275.29	CALCASIEU
3	6	67.48	EAST BATON ROUGE
4	4	32.10	RAPIDES
5	7	17.39	ST. CHARLES
6	4	4.60	ASCENSION
7	2	1.65	BEAUREGARD
8	1	1.45	MOREHOUSE
9	1	1.40	WASHINGTON
10	1	1.18	WEST FELICIANA
11	2	1.06	ST. BERNARD
12	1	1.04	OUACHITA
13	2	0.90	ST. JOHN THE BAPTIST
14	1	0.87	POINTE COUPEE
15	2	0.85	NATCHITOCHES
16	3	0.84	DE SOTO
17	1	0.74	ST. JAMES
18	1	0.72	JACKSON
19	1	0.27	ST. LANDRY
20	1	0.20	ORLEANS
21	1	0.19	LA SALLE
22	1	0.14	SABINE
23	1	0.13	ALLEN
24	1	0.12	WEBSTER
25	1	0.11	RED RIVER
26	1	0.10	LINCOLN
27	1	0.10	WINN
28	1	0.06	PLAQUEMINES

Chart 23-Parish Rank by Dioxin Total Releases. Chart 23 shows parish rank by dioxin total releases (air, water, land, injection). The number of dioxin reporting facilities in each parish is also listed. Release totals are in units of **grams**.

2.13-Transfers

In addition to release information, TRI data includes information submitted by reporting facilities on waste sent off-site for further waste management as recycling, energy recovery, waste treatment, publicly owned treatment works (POTWs), or disposal. (Off-site transfers for disposal are considered releases and are presented with the release information).

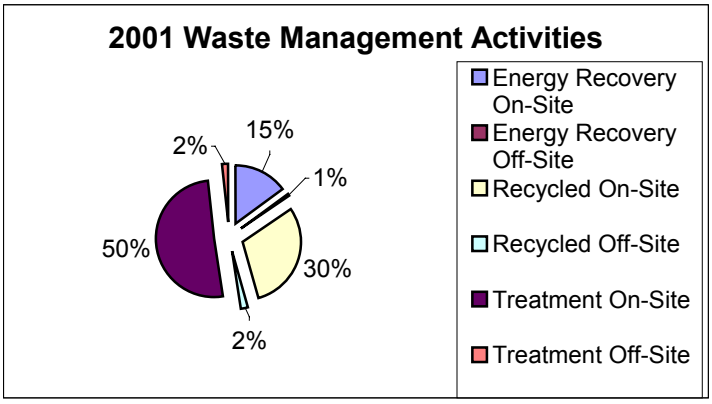
In 2001, approximately 84.5 million pounds were transferred off-site. Approximately 38 million pounds were transferred for recycling, 13 million pounds were transferred for energy recovery, 33 million pounds for waste treatment, and approximately 400 thousand pounds for POTWs.

2001 TRI Off-Site Transfers

PARISH	# FACS	RECYCLED	ENERGY	WASTE	POTWs
ACADIA	3	539	136,197	0	46
ALLEN	2	0	0	1,090	0
ASCENSION	19	488,403	6,362,700	5,825,033	0
ASSUMPTION	4	0	168,526	0	0
AVOYELLES	1	0	0	0	0
BEAUREGARD	4	0	61,405	2,900	0
BIENVILLE	3	0	0	0	263,565
BOSSIER	6	21,637	0	0	8
CADDO	24	9,326,633	31,473	2,200	50,076
CALCASIEU	32	14,528,230	2,732,794	805,621	0
CAMERON	1	0	0	0	0
DE SOTO	7	37,451	17,525	27,948	306
E. BATON ROUGE	22	412,924	2,652,946	749,840	0
EVANGELINE	2	79,560	0	0	0
FRANKLIN	1	0	0	0	0
GRANT	1	0	0	0	0
IBERIA	9	47,253	2,250	0	0
IBERVILLE	18	1,335	28,152	151,105	0
JACKSON	1	0	0	0	0
JEFFERSON	23	464,489	220,749	22,530	935
LA SALLE	2	0	0	0	0
LAFAYETTE	9	49,300	0	18,364	0
LAFOURCHE	5	2,866,108	18,244	0	0
LINCOLN	7	1,214,413	0	0	8
LIVINGSTON	7	46,330	10,506	1,665	0
MADISON	2	0	0	0	0
MOREHOUSE	1	0	0	0	0
NATCHITOCHES	6	108,142	0	0	853
ORLEANS	7	0	18,940	61,024	0
OUACHITA	12	138,686	0	70,081	62,080
PLAQUEMINES	9	794,617	244,984	47,159	0
POINTE COUPEE	3	0	0	0	0
RAPIDES	12	52,492	2,791	813	816
RED RIVER	1	0	0	0	0
RICHLAND	1	9,621	0	0	43,252
SABINE	4	0	0	0	0
ST. BERNARD	2	258,325	39,423	1,910	0
ST. CHARLES	22	1,061,361	370,428	23,199,663	0
ST. HELENA	1	0	0	192,887	0
ST. JAMES	9	1,250,252	632	784,023	0
ST. JOHN THE BAPTIST	11	3,368,923	0	131,278	0
ST. LANDRY	4	201	0	12,052	0
ST. MARTIN	1	0	0	0	0
ST. MARY	9	160,223	223	0	0
ST. TAMMANY	5	26,443	96,625	4,050	0
TANGIPAHOA	5	0	0	0	0
TERREBONNE	2	6,500	0	0	0
UNION	2	0	0	0	0
VERMILION	3	0	10,144	0	0
VERNON	2	0	0	0	0
WASHINGTON	3	0	155,378	270,032	0
WEBSTER	5	32,340	6,930	0	0
WEST BATON ROUGE	15	888,341	52,384	364,458	0
W.FELICIANA	1	0	0	0	0
WINN	3	0	0	0	0
TOTAL	**376**	**37,741,072**	**13,442,349**	**32,747,726**	**421,945**

2.14-Waste Management

Production related waste management includes treatment on and off-site, energy recovery on and off-site, and recycling on and off-site. In 2001, a total of 2,243,503,279 pounds of production-related waste were managed by facilities. On-site recycling and treatment decreased from 2000 to 2001, as well as off-site recycling and treatment. However, more waste was managed through on-site activities than through off-site management.



Graph 8-2001 Waste Management Activities. Graph 8 shows the different types of waste management activities utilized by facilities in 2001. These activities include treatment on and off-site, energy recovery on and off-site, and recycling on and off-site. Energy recovery on-site accounted for 15% of all waste management activities, energy recovery off-site was 2%, recycled on-site was 30%, recycled off-site was 2%, treatment on-site was 50%, and treatment off-site was 2%.

Section 8 Activities for 2001

	2000	2001
QUANTITY RELEASED	151,991,650	133,171,702
ENERGY RECOVERY ON-SITE	336,591,091	316,402,126
ENERGY RECOVERY OFF-SITE	14,667,557	13,451,035
RECYCLED ON-SITE	691,522,328	633,585,578
RECYCLED OFF-SITE	44,497,352	37,140,106
TREATMENT ON-SITE	2,251,016,628	1,076,414,217
TREATMENT OFF-SITE	16,767,191	33,338,516
TOTAL	**3,507,053,797**	**2,243,503,279**
CATASTROPHIC EVENTS	361,197	651,901

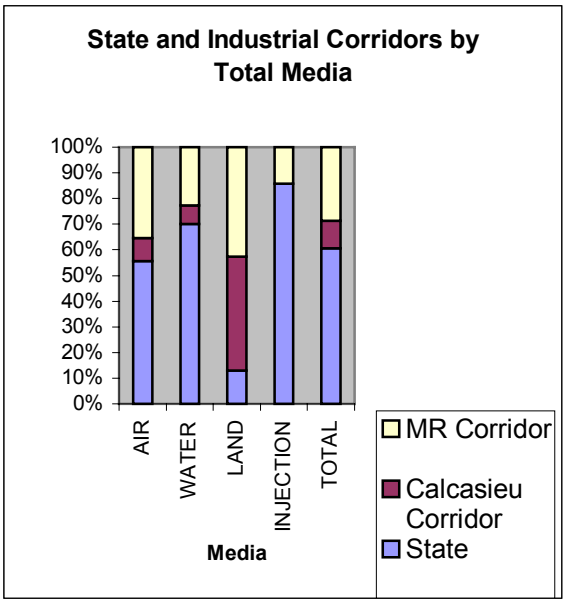
Chart 25-Section 8 Activities for 2001. Chart 25 indicates that less waste was managed in 2001 than in 2000. Total non-production related waste reported for 2001 was approximately 650,000 pounds.

2.15-Louisiana Industrial Corridors

Louisiana is a highly industrialized state with a large number of facilities concentrated in parishes along the Mississippi River (Mississippi River Industrial Corridor) and in Calcasieu Parish (Calcasieu Industrial Corridor). These two areas represent approximately 50% of all reporting facilities in the state. The Mississippi River Industrial Corridor (MRC) has 156 facilities (42%), and the Calcasieu Industrial Corridor has 31 facilities (8%).

When Louisiana totals are compared to the MRC and Calcasieu Industrial Corridor totals, the MRC contributed 56% of the state's releases to air, 70% of the state's water releases, 13% of the state's land releases, and 86% of the state's underground injection releases. In total releases, the MRC was 61% of the state's total releases.

The Calcasieu Industrial Corridor contributed 9% of the state's releases to air, 7% of the state's water releases, and 45% of the state's land releases. There were no releases to underground injection by Calcasieu facilities. Total releases in the Calcasieu Industrial Corridor were 11% of the state's total releases.



Graph 9-State and Industrial Corridors Total By Media. This graph shows the totals for percent releases to individual media, and all media. The 100% line is the state total. The medium gray represents percent contribution of all parishes in the state, excluding Calcasieu and Ascension, Jefferson, St. Charles, East Baton Rouge, Iberville, St. James, St. John the Baptist, West Baton Rouge, St. Bernard, West Feliciana, Orleans, and Plaquemines (MRC). The dark gray represents the MRC's percent contribution to the state total, and the light gray represents Calcasieu's percent contribution to the state total.

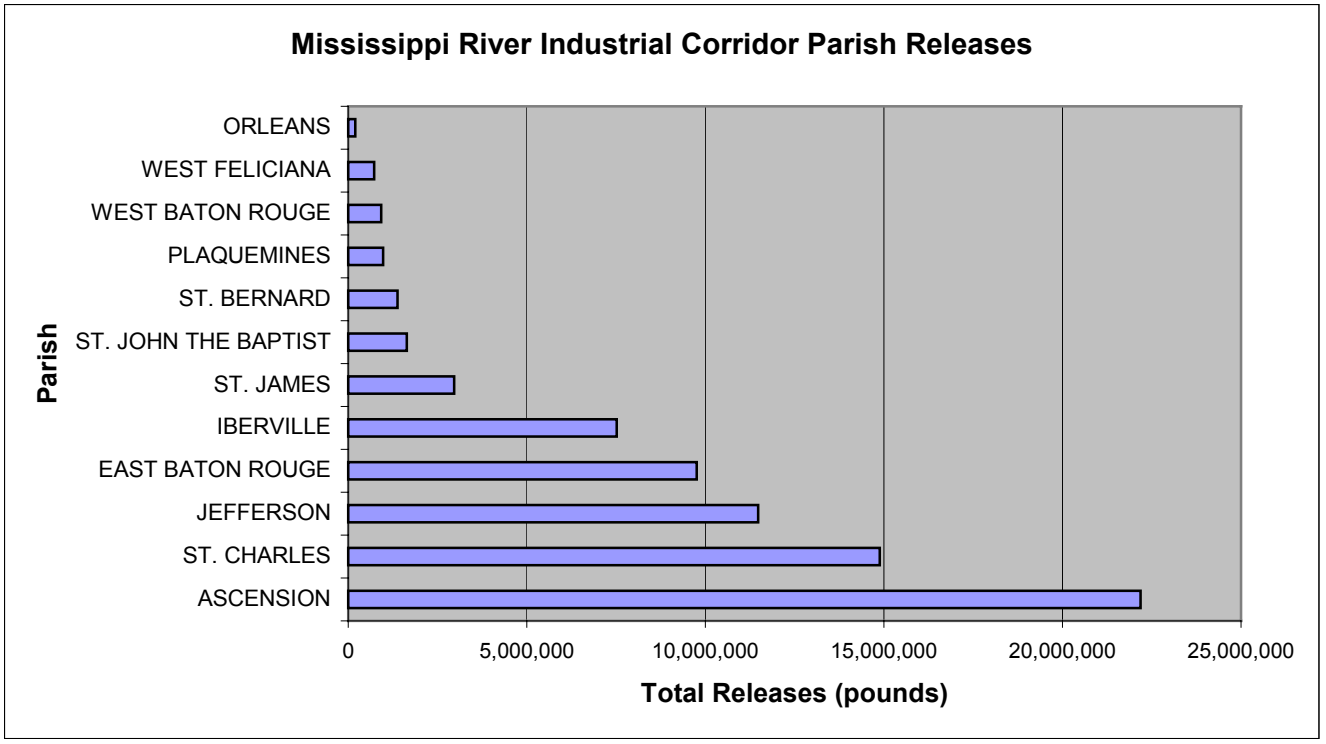
2.16-Mississippi River Industrial Corridor Parishes

The Mississippi River Industrial Corridor (MRC) consists of 12 parishes along the Mississippi River, from West Feliciana to Plaquemines Parish. In 2001, 156 MRC facilities reported to TRI, accounting for approximately 75 million pounds of releases. Ascension Parish was the top facility in total releases, with approximately 22 million pounds of releases. St. Charles followed with approximately 14 million pounds of total releases. Jefferson released approximately 11 million pounds, and East Baton Rouge released about 9 million pounds. The rest of the MRC parishes reported less than 10 million pounds, with Orleans reporting the least (approximately 200 thousand pounds). Jefferson had the most reporting facilities (23), followed by St. Charles and East Baton Rouge, with 22 facilities each. Ascension had 19 reporting facilities, and Iberville had 18. West Feliciana was the only MRC parish with one reporting facility.

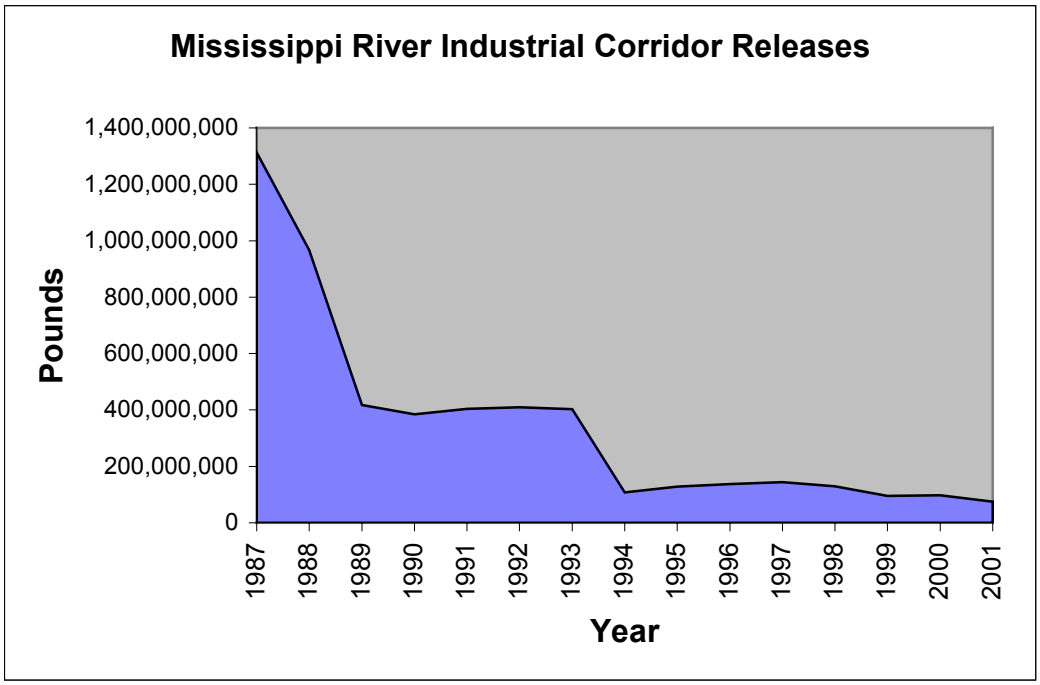
Mississippi River Industrial Corridor Parishes

RANK	# FACS	TOTAL	PARISH
1	19	22,187,306	ASCENSION
2	22	14,884,622	ST. CHARLES
4	23	11,482,815	JEFFERSON
5	22	9,760,550	EAST BATON ROUGE
8	18	7,520,184	IBERVILLE
9	9	2,966,349	ST. JAMES
16	11	1,639,317	ST. JOHN THE BAPTIST
18	2	1,384,303	ST. BERNARD
20	9	980,253	PLAQUEMINES
21	15	919,804	WEST BATON ROUGE
23	1	729,174	WEST FELICIANA
29	7	201,316	ORLEANS

Chart 26-Mississippi River Industrial Corridor Parishes. Chart 26 shows the MRC parishes, the rank of the parish when compared to all other Louisiana parishes, the number of reporting facilities in each parish, and the total releases (air, water, land, injection) from each parish.



Graph 10-Mississippi River Industrial Corridor Parish (MRC) Releases. Graph 10 is a visual aid for chart 26. This figure shows the MRC parishes and their releases.



Graph 11-Mississippi River Industrial Corridor Releases. Graph 11 shows trend data for the MRC. There was a 94% decrease (1,237,579,168 pounds) in total releases from 1987-2001, and a 24% (pounds) decrease from 2000-2001.

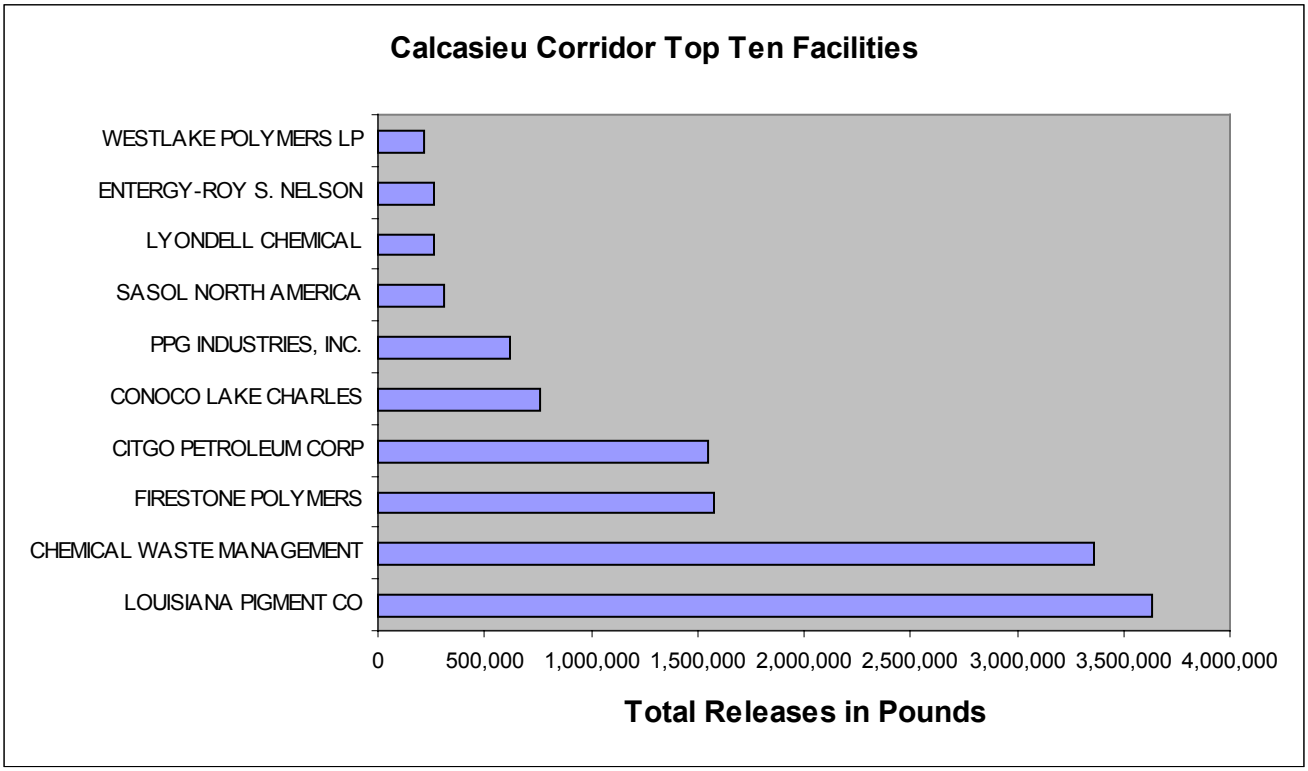
2.17-Calcasieu Industrial Corridor

In 2001, there were 31 reporting facilities in the Calcasieu Industrial Corridor. These 32 facilities had total releases (air, water, land, injection) of approximately 13 million pounds. Calcasieu parish was ranked 3rd in the state for total releases, 3rd for air releases (approximately 5 million pounds), 3rd for water releases (approximately 860 thousand pounds), and 1st for land releases (approximately 7 million pounds). Calcasieu ranked 12th in underground injection releases with no releases.

Calcasieu Parish Releases by Facility

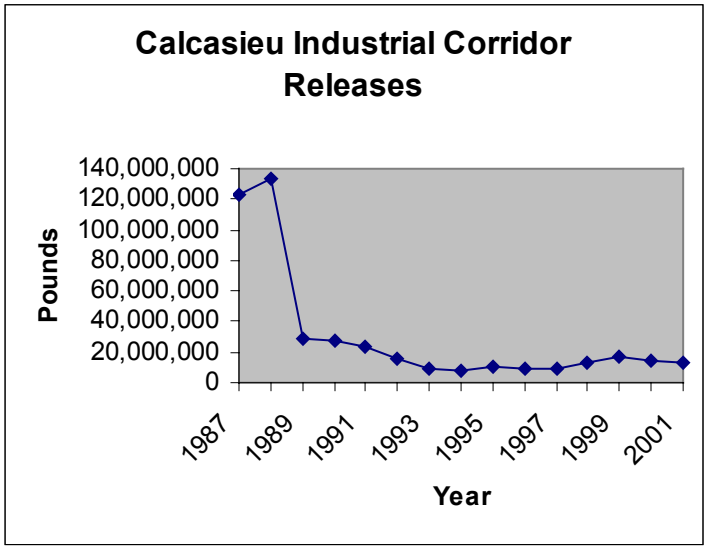
FACILITY	AIR	WATER	LAND	INJECTION	TOTAL
ALAC WESTLAKE ASU	5	0	0	0	5
ARCH CHEMICALS	3,472	0	0	0	3,472
BASELL USA, INC.	59,620	0	0	0	59,620
BIOLAB, INC.	24,607	0	0	0	24,607
CALCASIEU REFINING	4,410	1,389	16	0	5,815
CARBOLINE COMPANY	6,823	0	0	0	6,823
CERTAINTEED CORPORATION	2,200	5	0	0	2,205
CHEMICAL WASTE MANAGEMENT	14,948	0	3,343,106	0	3,358,054
CITGO PETROLEUM CORP.	1,405,294	131,575	16,372	0	1,553,241
CONOCO LAKE CHARLES	519,614	242,763	0	0	762,377
ENTERGY-ROY S. NELSON	236,060	26,152	0	0	262,212
EQUISTAR CHEMICALS	14,654	0	0	0	14,654
FIRESTONE POLYMERS	1,580,803	0	0	0	1,580,803
GEORGIA GULF LAKE CHARLES	42,083	0	0	0	42,083
GULF COAST LUBES	0	0	0	0	0
INDUSTRIAL PIPE	53,265	0	0	0	53,265
LAKE CHARLES CARBON	63,507	16	175	0	63,698
LOUISIANA PIGMENT CO.	25,412	6,727	3,603,604	0	3,635,743
LYONDELL CHEMICAL	47,808	216,642	0	0	264,450
OHMSTEDE, INC.	0	0	0	0	0
PECAN GROVE MARINE TERMINAL	39	0	0	0	39
PPG INDUSTRIES, INC.	402,692	217,525	5	0	620,222
RESIN SYSTEMS, INC.	4,780	0	0	0	4,780
SASOL NORTH AMERICA	305,837	753	0	0	306,590
SOUTHERN IONICS, INC.	250	0	0	0	250
TETRA CHEMICALS, INC.	3,287	0	0	0	3,287
W.R. GRACE & CO.	92,780	18,000	0	0	110,780
WESTLAKE PETROCHEMICALS	112,667	38	0	0	112,705
WESTLAKE POLYMERS CO.	63,062	0	0	0	63,062
WESTLAKE POLYMERS LP	215,245	0	0	0	215,245
WESTLAKE STYRENE LP	22,244	1	0	0	22,245

Chart 27-Calcasieu Parish Releases by Facility. Chart 27 shows each facility in Calcasieu Parish, the releases to air, water, land, and underground injection, and the total releases.



Graph 12-Calcasieu Corridor Top Ten Facilities. Graph 12 shows the 10 facilities in Calcasieu Parish that had the greatest amount of total releases (air, water, land, injection).

The Calcasieu Parish Industrial Corridor shows a 89% decline from 1987, and a 6% decline from 2000. The greatest reduction was seen in 1994, where the total releases reported were approximately 8 million pounds. The largest reported release amounts occurred in 1987 and 1988.



Graph 13-Calcasieu Industrial Corridor Releases. Graph 13 shows trend data for the Calcasieu Industrial Corridor. Data is presented in total releases (air, water, land, injection).

Chapter 3-Emission Inventory (EI) Program

3.0 Introduction

Both the Emissions Inventory (EI) and Toxic Emissions Data Inventory (TEDI) regulations have requirements that stem from the Clean Air Act. The Clean Air Act (CAA) is a law that was signed into action in 1970 as the result of the rapid increase in air pollution and smog. This law required that the states propose individual plans of action to ensure that National Ambient Air Quality Standards (NAAQS) would be met, emissions of air pollutants by stationary and mobile sources would be greatly reduced, and national emission standards would be set for hazardous/toxic air pollutants (mercury, arsenic, etc).

The CAA established the basis for modern air pollution control efforts by limiting the production of six criteria pollutants: Photochemical oxidants, Nitrogen Oxide (NO_x), Non-Methane Hydrocarbons (NMHCs), Sulfur dioxide (SO_2), Particulate Matter less than 10 microns (PM10), and Lead. The pollutants were called "criteria pollutants" because their standards were established from information in air quality criteria documents.

When the Clean Air Act was amended in 1990, the amendments designated the word "nonattainment" to areas (a parish or group of parishes) declared by the administrative authority not to be in compliance with NAAQS for criteria pollutant(s), and "attainment" to areas that were in compliance. New facilities were also required to seek New Source Review (NSR) permits. Permits in attainment areas were designated Prevention of Significant Deterioration (PSD) permits, which require that the best available control technology (BACT) be considered in the installation of pollution controls. Non-Attainment Area (NAA) permits were issued in nonattainment areas, and mandated that emissions meet the lowest achievable emission rate (LAER). A new emphasis was also placed on controlling acid rain and ozone depletion, as well as the emission of hazardous pollutants. The criteria pollutants were listed as Lead, Volatile Organic Compounds (VOCs), NOx, CO, SO_2, and PM10. In addition, economic incentives for reducing pollution were being introduced to industry. For example, companies could get "credits" if they produced cleaner gasoline than required, and could use these credits when their gasoline was not as clean; acid rain allowances could be bought or sold between companies.

The CAA was amended again in 1997. These changes involved proposing a program to control regional haze and issued revisions to strengthen the standards for particulate and ozone.

3.1 Criteria Pollutant Emissions Inventory Reporting

Louisiana Administrative Code (LAC) 33:III.919 reads that regulated facilities are required to report the release of VOCs, NO_x, CO, SO_2, PM10 and lead from the previous year, to the Louisiana Department of Environmental Quality (LDEQ) by March 31 of the following year. State criteria pollutant emissions are maintained in the *Emissions Inventory* database (EI), and made available to the public on the LDEQ website and through data requests. Annually, the state data is uploaded to the US Environmental Protection Agency's National Emissions Inventory (NEI) database.

LAC 33:III.919 states that Emission Inventory data shall be submitted to the LDEQ in the format specified by the Office of Environmental Assessment, Environmental Evaluation Division. LAC 33:III.919 requires that any facility in an **attainment** area or unclassified area, that emits or has the potential to emit 100 tons per year (tpy) or more of any contaminant for which a NAAQS has been issued, shall submit an emissions inventory. It also states that facilities in a marginal, moderate, or serious ozone **nonattainment** area, that emits or has the potential to emit 10 tpy

VOC, 25 tpy NOx, or 100 tpy CO or any other contaminant for which a NAAQS has been issued, are also required to submit emissions inventories. Any facility that emits or has the potential to emit 50 tpy or more of VOC or 100 tpy or more of any other contaminant for which a NAAQS has been issued, in an area adjoining an ozone nonattainment area, shall submit an emissions inventory. Also, if a facility is identified as a major source of hazardous air pollutants (HAPS) as listed in section 112(a)(1) of the Federal CAA, or LA toxic air pollutants (TAPS) in LAC 33:III.5112, it must report.

There are no exemptions to the aforementioned stipulations. All emissions within the facility must be reported in the inventory, including insignificant sources, start-ups and shutdowns, upsets, accidents, fugitive, and flash gas emissions.

Emissions Inventory Reporting

The report for each facility consists of a certification statement and an electronic data file. All reports are due by March 31 of the following year for the previous year's emissions, unless otherwise directed by the agency.

Each year, a facility must submit a certification statement. With the certification statement, the facility signifies whether this is an annual submittal or a correction; if electronic data has or has not been included or will be e-mailed; company name and relevant facility data; the total pollutant emissions for the year; and it must be signed by a responsible company official. The actual emissions for each individual emission point source must be estimated and entered into an electronic data file, in addition to relevant data elements, such as stack parameters, locational information, and permitted emissions.

3.2 Benefits and Limitations

Benefits

The focus of the EI is to collect information about the criteria air pollutant emissions, and to provide public access to the information concerning the reporting facilities. This information can be given to customers via data requests, and can provide information at a local, state, regional, and national level. Responsible use of data can aid the public in addressing fears and/or concerns, help them to become aware of risks, and allow them to work with the government and industry to provide a healthier environment for all parties involved.

The data collected can be used by all forms of government to compare facilities and geographic areas, identify areas of concern, monitor ozone and acid rain production, set regulatory priorities more effectively, and track the effects of pollution control. Industry can also benefit from the data by using the information to obtain an overview of releases, manage emissions, and to monitor progress toward reduction goals.

Limitations

EI data is a key source of environmental information. However, there are some limitations to be considered when utilizing the data. Prior to the 1990 CAA amendments, levels of VOC and CO were not monitored, as they were not considered to be criteria pollutants. Also, facilities that do not trigger the criteria pollutant threshold are not required to report, even if they are releasing some criteria pollutants. There are no EI records for the years 1991 and 1992. Also, the electronic data is sub par for 1993 and prior years. Another limitation is that some facilities report estimated data. Variations within the industry may result from the use of different estimation techniques. Variations may also occur because the EI database is dynamic; facilities can submit corrections at any time. This should be noted when considering data accuracy and comparability.

3.3 New Developments in Emissions Inventory

There were several alterations to the EI for the year 2001. The LDEQ EI staff requested that facility UTM coordinates, addresses, contact information and stack data be double-checked. Beginning with reporting year 2002, the LDEQ has requested that facilities report Particulate Matter of 2.5 microns or less (PM 2.5), in addition to the other criteria pollutants. Also, ammonia must be reported to both the EI and TEDI for the reporting year of 2002. These changes are due to the recent promulgation of the Consolidated Emissions Reporting Rule (CERR) by the EPA.

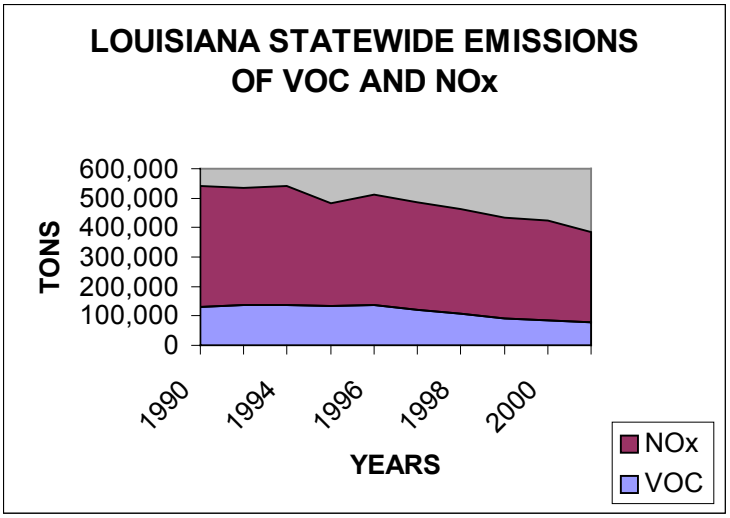
3.4 Criteria Pollutants Emissions for 2001

Emissions Inventory data were submitted by approximately 870 EI facilities. Based on the 2001 statewide data, approximately 79,000 tons of VOCs and 306,600 tons of NO_x were reported to EI. Calcasieu Parish was the leading emitter of both VOCs and NO_x. The leading facilities for VOCs were Riverwood International-Plant # 31, in Ouachita Parish, and Citgo Petroleum, in Calcasieu Parish. Louisiana Generating-Big Cajun 2, in Pointe Coupee Parish, was the leading emitter of NO_x.

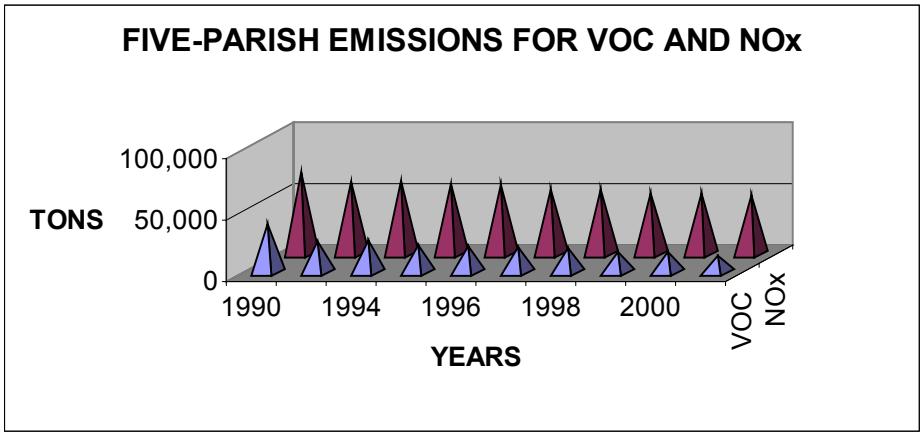
In Louisiana, one area remains designated as nonattainment for ozone. The area consists of five parishes, namely Ascension, East Baton Rouge, Iberville, Livingston, and West Baton Rouge. VOC and NOx emissions for the five-parish area and the state are presented in the chart below. Chart 1 displays a downward trend from 1990 to 2001 for criteria pollutants, VOCs and NOx. VOCs reported statewide have decreased by 39% (50,297 tons) from 1990 to 2001, and by 7% (6,030 tons) since 2000. From 1990-2001, statewide NOx emissions have decreased by 26% (104,288 tons), and by 9% (32,538 tons) since 2000. The five-parish area reported VOC and NO_x totals respectively decreased by 65% (25,182 tons) and 28% (18,817 tons). In the five-parish area, there was a 17% (2,901 tons) decrease in reported VOC and a 4% (2,124 tons) decrease in NO_x since 2000.

	VOCs (tons)		NO_x (tons)	
Year	**Five-Parish**	**LA Total**	**Five-Parish**	**LA Total**
1990	38,948	129,455	66,703	410,928
1993	24,965	136,924	58,930	398,428
1994	26,048	137,086	59,714	403,383
1995	22,238	134,131	57,755	347,515
1996	21,170	137,296	57,084	374,388
1997	20,410	119,569	52,711	367,113
1998	19,632	106,887	52,926	357,079
1999	16,964	91,792	49,805	341,406
2000	16,667	85,188	50,010	339,178
2001	13,766	79,158	47,886	306,640

Chart1 - **Louisiana Emissions of Criteria Pollutants (tons)**. The chart exhibits VOC and NOx trend data for the state and the five ozone nonattainment parishes. 1991 and 1992 emissions are not available because an inventory was not collected. 1990 and 1993 totals were obtained from sub-par electronic datafiles.



Graph 1-Louisiana Statewide Emissions of VOC and NO_x. Graph 1 displays the statewide trend data for reported VOC and NO_x.

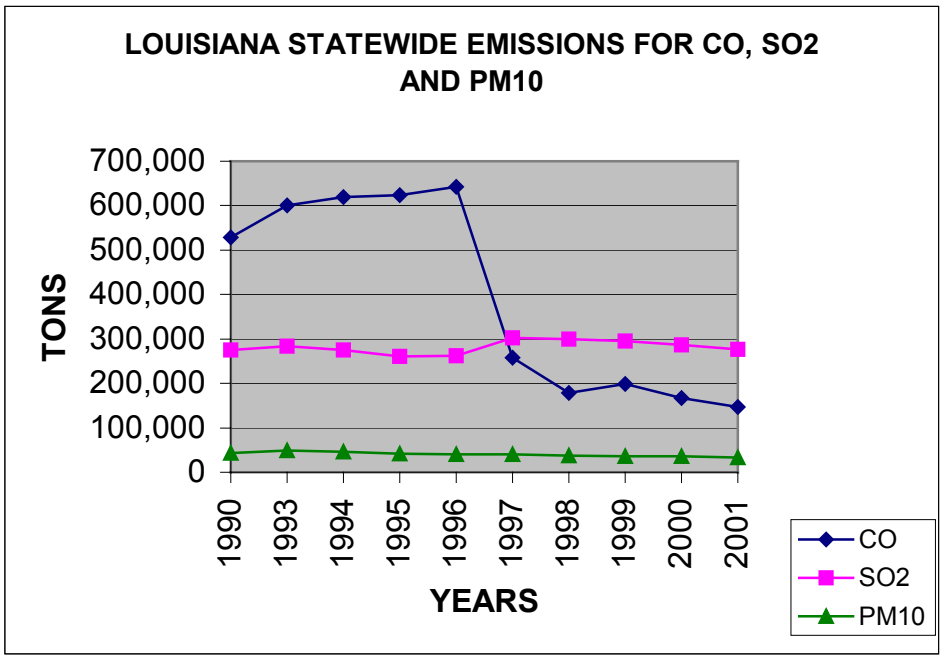


Graph 2- Five-Parish Emissions for VOC and NO_x. Graph 2 displays the reported five-parish trend data for VOC and NO_x emissions.

Chart 2 displays a downward trend for reported CO and PM10 since 1990. Reported SO_2 emissions display a slight increase (1,255 tons). Statewide reported CO emissions from 1990 to 2001 decreased by 72% (381,069 tons), and by 12% (19,616 tons) from 2000 to 2001. SO_2 emissions decreased from 2000 to 2001 by 4% (12,411 tons). Reported PM10 emissions decreased by 23% since 1994 (9963 tons), and decreased by 7% (2,373 tons) since 2000. Please note that prior to year 2000, some reported PM10 emissions might also include particles greater than 10 microns (TSP), due to changes in methodology.

Chart 2-Louisiana Statewide Emissions for CO, SO_2, and PM10.

Year	CO (tons)	SO_2 (tons)	PM10 (tons)
1990	527,994	275,585	43,690
1993	600,290	283,928	49,579
1994	619,087	275,419	46,081
1995	624,192	260,276	41,260
1996	641,742	262,334	39,623
1997	258,522	302,247	40,214
1998	179,068	299,498	38,075
1999	198,513	295,123	36,651
2000	166,541	289,251	36,100
2001	146,925	276,840	33,727

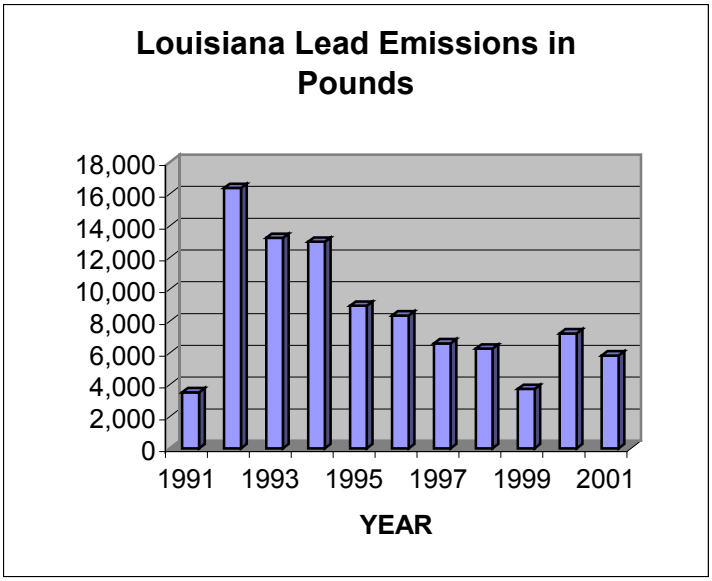


Graph 3-Louisiana Statewide Emissions for CO, SO_2, and PM10. This graph displays trend data for reported CO, SO_2, and PM10.

There is a large increase (12,862 pounds) from 1991 to 1992 because facilities were not required to report lead air emissions until 1992. From 1991 to 2001, there was a net increase of 40% (2,320 pounds). This increase is due to the aforementioned reasons. From 1992-2001, there was a 64% decrease (10,542 pounds) in lead emissions. There was also a 19% decrease (1,392 pounds) in emissions from 2000 to 2001.

Year	Pounds of Lead
1991	3,519
1992	16,381
1993	13,237
1994	12,999
1995	8,968
1996	8,352
1997	6,601
1998	6,276
1999	3,739
2000	7,231
2001	5,839

Chart 3-Louisiana Lead Emissions. The chart displays trend data for lead emissions (in pounds).



Graph 4- Louisiana Lead Emissions. This graph shows the trend data for lead from 1991 to the present. Lead totals are displayed in pounds per year.

3.5 Periodic Emissions Inventory

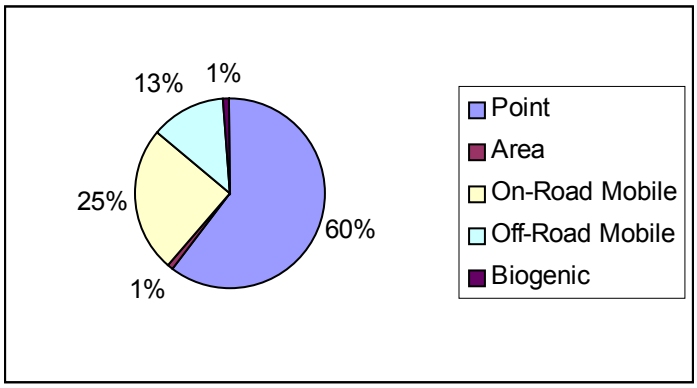
As mandated by the Clean Air Act, LDEQ submits a Periodic Emissions Inventory (PEI) to the EPA every three years. The PEI incorporates estimates of VOC and NO_x emissions of point, area, on-road mobile, off-road mobile, and biogenic sources. It also describes the methods involved in the collection and estimation of these emissions. Point sources are facilities or activities, for which individual records are maintained in the EI database. Area sources are a collection of many small, individually unidentified points of air pollution, too numerous or too small to be addressed individually. (Examples of area sources are dry cleaners, bakeries, graphic arts, etc.) On-road mobile sources include vehicles that travel on the road or highways for commuter purposes, commercial or private, and for transportation of products. Off-road sources are those vehicles used off of highways and roads. Off-road sources include, but are not limited to, railroad locomotives, marine vessels (commercial and recreational), lawn and garden equipment, agricultural equipment, etc. Lastly, biogenic sources are comprised of emissions that are created by the natural biological processes of trees, plants, and agricultural crops.

The PEI is helpful because it summarizes and provides an overview of all source emissions, aiding in the identification of areas of concern. The most recent completed PEI is for 1999. The next available PEI will incorporate the 2002 emissions. Due to the Consolidated Emissions Reporting Rule (CERR), the 2002 PEI will account for emissions in all parishes in the state. The area, on-road mobile, off-road mobile and biogenic emission estimates generated for the PEI are also uploaded to the NEI along with the point source data.

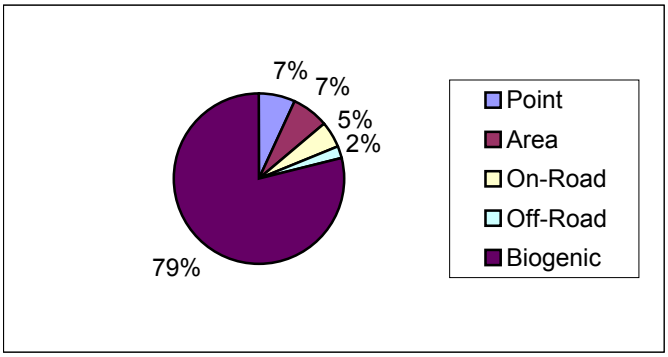
The pie charts below were taken from the 1999 PEI, and display each source contribution to the air quality in the nonattainment area in LA. Two charts are displayed, including the VOC and NO_x emissions of all five sources. The other two charts exclude biogenic emissions, therefore representing only anthropogenic (man-made) VOC and NO_x contributions to our air quality.

When reviewing these charts, it should be noted that the methods for collection and estimation of these emissions are not consistent. The method for the collection of point source data has been previously discussed in this report. Each facility submits their own data, by point, and may use varying methods. The area source data was estimated with aggregated area source calculations, using population, Department of Labor employee data, geographical or commercial statistics, and

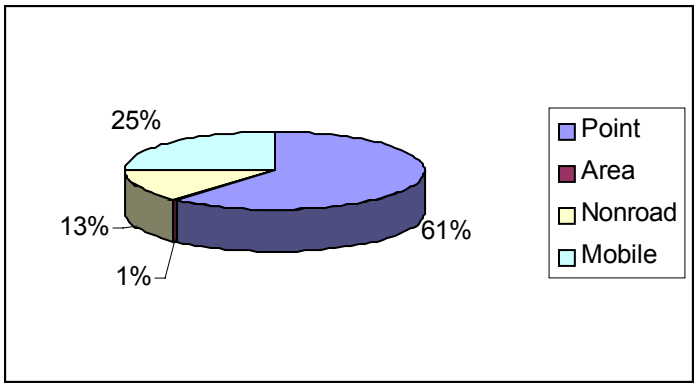
direct activity data (when available). On-road mobile emissions were generated with the MOBILE5b model (a PC-based model which generates emission factors for gasoline/diesel-fueled vehicle types), which was EPA's current mobile emissions model at the time. In the future, the emissions will be generated with MOBILE6, which is now complete, or the most current version of the MOBILE model. The off-road emissions, except for commercial marine vessels, locomotives, and aircrafts, were estimated with the use of EPA's PC-based Non-road model. Commercial marine vessels, locomotives and aircraft emissions were created in-house with methods using activity data, similar to those used in the estimation of area sources. The EPA Non-road model was not used as it does not account for those sources. Finally, the biogenic emissions were developed with the use of EPA's PC-BEIS 2.3, a computer algorithm, which is used to estimate hourly emissions of VOCs and NO_x. In the future, the emissions will be generated with BEIS3, or the most current version of the BEIS model.



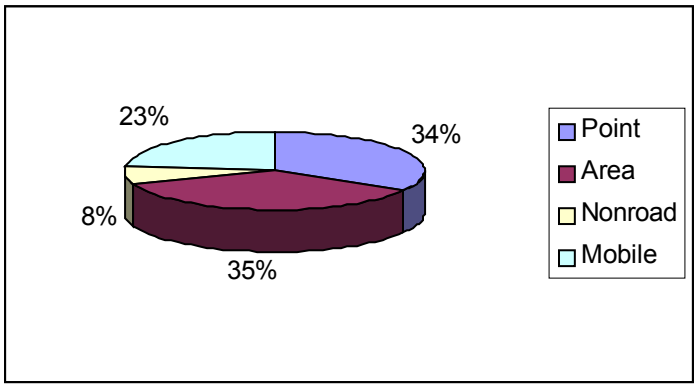
Graph 5-NO_x 1999 Five-Parish Area Emission Estimates in Tons Per Day. This graph displays estimated percent contribution of **NOx** by point, area, on-road mobile, off-road mobile and biogenic sources to the five-parish area.



Graph 6- VOC 1999 Five-Parish Area Emission Estimates in Tons Per Day. This graph contains the percent distribution of **VOCs** by point, area, on-road mobile, off-road mobile and biogenic sources.



Graph 7-NO_x Contribution of Anthropogenic Sources, 1999 (TPD). This graph displays the percent distribution of **NOx** emissions, excluding biogenic sources.



Graph 8-VOC Contribution of Anthropogenic Sources, 1999 (TPD). This graph displays the percent distribution of **VOC** emissions, excluding biogenic sources.

Chapter 4-Toxic Emissions Data Inventory (TEDI) Program

4.0 Introduction

In 1991, the Comprehensive Toxic Air Pollutant Emission Control Program was established by DEQ, to regulate major sources of toxic air pollutants under LAC 33:III. Chapter 51, Subchapter A. Regulated sources include existing, new, and modified sources that emit, or have the potential to emit, 10 or more tons per year of any single toxic air pollutant, or 25 or more tons per year of any combination of the toxic air pollutants listed in Table 51.1 of LAC 33:III. Chapter 51. The program also applies to facilities that were originally characterized as major sources, but have achieved minor source status through the reduction of emissions or the potential to emit. Facilities subject to this chapter are required to submit annual emissions of toxic air pollutants in a format specified by the Department.

In accordance with LAC:33.III.Chapter 51, the owner or operator of any stationary source subject to the requirements in subsection A of this section, shall submit a completed TEDI report to the LDEQ on or before July 1 of each year. Each subsequent report shall identify the quantity of emissions of all emitted toxic air pollutants listed in Table 51.1 or 51.3. All toxic emissions within the facility must be reported to the LDEQ. There are special provisions as well as prohibited activities listed under LAC 33:III.5105. All reporting requirements for annual emissions and discharges, availability of information, and provisions for public notice are described in LAC 33:III.5107.

The data to be reported must be in ASCII format with no headers, lines, spaces, or commas before the first and last characters of entry. Each line must contain 53 characters fixed length. A 3.5 diskette with the data in ASCII format, along with a copy of the data printed out, and a detailed written report (according to LAC 33:III.5107.B) of all toxic air pollutant discharges will then be submitted to the LDEQ. To see examples of this format, refer to the DEQ web page (www.deq.state.la.us/evaluation/airmon/tedi.htm). Along with the data, a certification statement must be submitted by the facility, including the company name, TEDI identification number, the agency interest number, TEDI reporting year, and a dated signature of the certifying company official.

4.1 Benefits and Limitations

Benefits

TEDI is an extraordinary database that is unique to Louisiana. This database takes the CAA a step further, requiring major sources to report toxic chemicals released into the air. The data is then presented yearly in report format. Consequently, the public is aware of the types of toxics being released from facilities. Hence, the focus of TEDI is to receive information on toxic air pollutants and to provide the public access to this information. The information can be given to customers via data requests, and can provide information at a local, state and regional level. Responsible use of data can help the public to address fears and concerns, assess risks, and work with industry and the government to form a healthier environment.

Limitations

TEDI data is a key source of environmental information. However, there are some limitations to be considered when using this data. Prior to 1991, TEDI data is not available, because TEDI was implemented in this year. TEDI data comes from major or “once” major sources. Another limitation is that some facilities report estimated data; variations within measuring techniques

produce varying results. TEDI is also a dynamic database; facilities can submit corrections at any time. These limitations should be taken into account when considering data accuracy and comparability. TEDI data is non-locational, with parish location being the only exception. For air toxics modeling exercises and input into the NEI, where the exact location of emission points is required, the location of emission points is determined by referencing the EI database and using the corresponding NEDs ID point identifiers. TEDI data may be less than entirely accurate as much of the TEDI data is estimated using emission factors and process knowledge. TEDI data is incomplete in that electric utility steam-generating units are exempt from reporting under TEDI. Emissions from the combustion of virgin fossil fuels are exempt as well.

4.2 Data

For reporting year 2001, the TEDI Program collected data from approximately 277 facilities. 49,780,367 pounds of Toxic Air Pollutants (TAPS) were reported to TEDI. Ammonia was the most prevalent TAP. Ascension Parish emitted the most TAPS, and CF Industries in Ascension Parish, was the top TAPS emitting facility. TEDI reports were due on July 1, 2002.

Emission Sources

Source of Emissions	1987 Revised Baseline (thousands of pounds)	1999 Emissions (thousands of pounds)	2000 Emissions (thousands of pounds)	Net Reduction (thousands of pounds, 87-00)	Percent Reduction (87-00)
TRI Industries	129,577	60,376	59,709	69,871	53.9
Mobile Sources	54,066	34,445	33,705	20,361	62.3
Area Sources	30,397	13,069	13,348	17,049	43.9
Other Sources	65,330	3,045	2,795	62,535	4.3
Total Toxics	**279,370**	**110,935**	**109,558**	**169,812**	**39.2**

Table1- Comparison of Revised 1987 Baseline to 2000 Toxic Air Emissions. Data for the table was achieved in the following manner: 1) TRI Industries. Data was collected from the DEQ's Toxic Release Inventory database. The releases to air, from each TRI chemical that is also a TEDI chemical, were summed. 2) Mobile Sources. A total for Louisiana's nonmethane hydrocarbon (NMHC) emissions was produced by using EPA's MOBILE5b emissions model, in conjunction with statewide vehicle miles traveled data (from the Louisiana Department of Transportation and Development). Then, statewide totals for air releases of benzene, toluene, ethylbenzene, xylene, 1,3-butadiene, and hexane were obtained. Theses totals were added to the NMHC total to achieve the Mobile Sources figure. 3) Area Sources. To obtain this total, estimates of toxic air emissions from six categories of area sources were obtained. The six categories were Graphic arts, Architectural Coatings, Wastewater Treatment Plants, Automobile Refinishing, Vapor Degreasing, and Dry Cleaning. Since the 1987 baseline emissions were estimated using emission factors expressed in pounds per capita, Louisiana's population was also necessary. A ratio was achieved by dividing the present population by the population in 1987. This ratio was then multiplied by the 1987 emissions for Graphic Arts, Architectural Coatings, Wastewater Treatment Plants, and Automobile Refinishing, and these totals were summed. This sum was then added to the totals for Vapor Degreasing and Dry cleaning, which were obtained from mandatory emission reports. 4) Other Sources. Emissions from glycol dehydrators, commercial incinerators, and hydrogen sulfide were summed to obtain this figure.

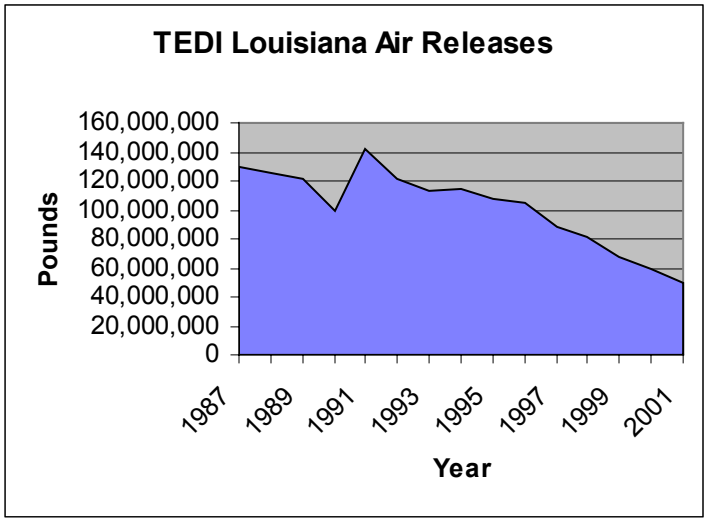
A comparison of total 2000 emissions to the revised 1987 baseline is shown in the above table. Based on the table below, a downward trend is displayed across all categories. There was a 39.2% decrease in total toxics, from 1987-2000. From 1999-2000, there was a 1.24% decrease.

Louisiana Air Releases

A downward trend is seen from 1987-2001, except for 1991, in which there was a 9% increase. This increase was due to the fact that prior to 1991, TAP releases were estimated from the TRI releases. Since the TEDI program had not yet been established, the TRI database was the initial source of TEDI data. After the introduction of TEDI, additional TAPS that were not included on the TRI chemical list were now being reported. TEDI also included non-manufacturing facilities outside of SIC codes 2000-2999, the original industries covered under TRI. Hence, 1991 is the first year that there was concrete data for TEDI. There was a 61.6% decrease (79,797,527 pounds) in statewide TAPS from 1987-2001, and a 15.9% decrease (9,378,780 pounds) from 2000-2001.

Calendar Year	Pounds Reported	% Decrease from 1987
1987	129,577,894	-
1988	124,886,790	3.6
1989	121,773,845	6.0
1990	99,503,683	23.2
1991	142,370,572	+9.0
1992	121,200,852	6.5
1993	112,877,922	12.9
1994	114,842,523	11.4
1995	108,059,509	16.6
1996	104,510,875	19.3
1997	88,269,704	31.9
1998	80,928,264	37.5
1999	67,649,487	47.8
2000	59,159,147	54.3
2001	49,780,367	61.6

Table 2-TEDI Louisiana Air Releases (1987-2001). The following table and graph display the downward trend in statewide total TAPS since 1987. Data prior to 1991 was collected from the DEQ Toxic Release Inventory database. The releases to air (from each TRI chemical that is also a TEDI chemical) were totaled.



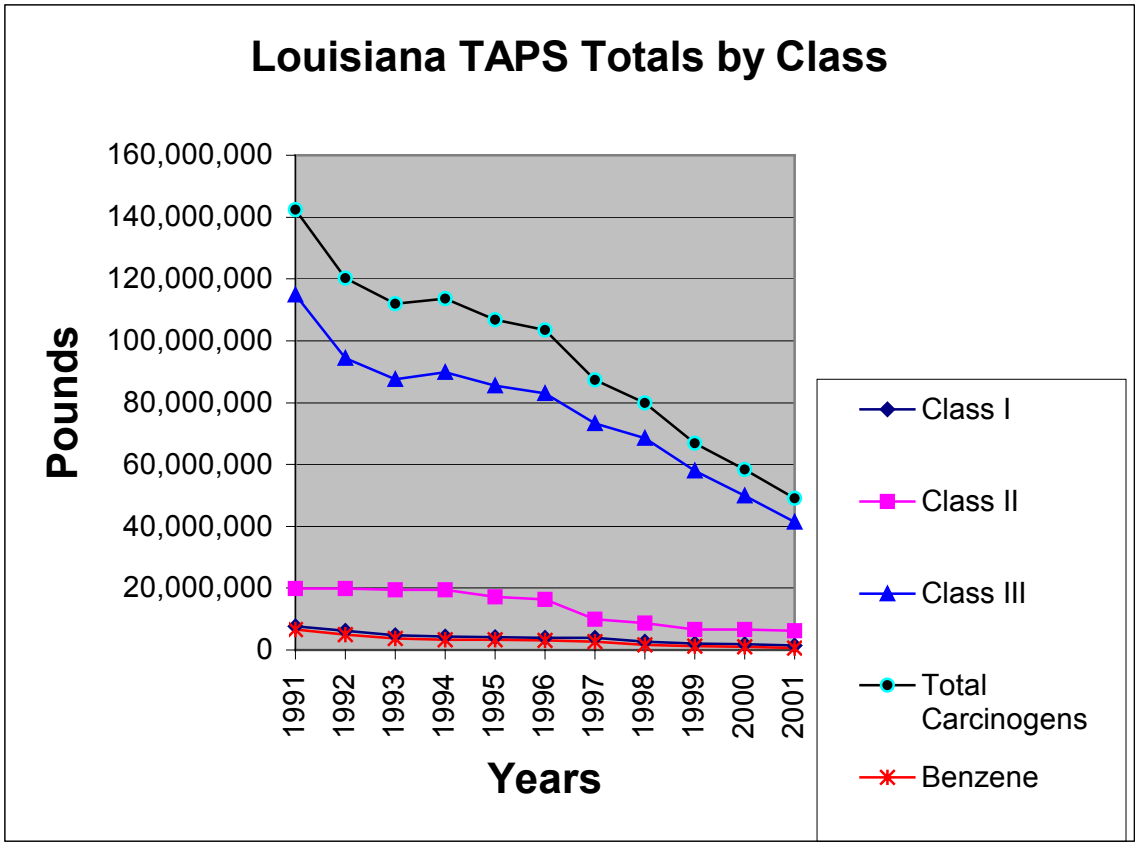
Graph 1-TEDI Louisiana Air Releases. This graph is a visual aide for Table 2.

TEDI Chemicals by Class

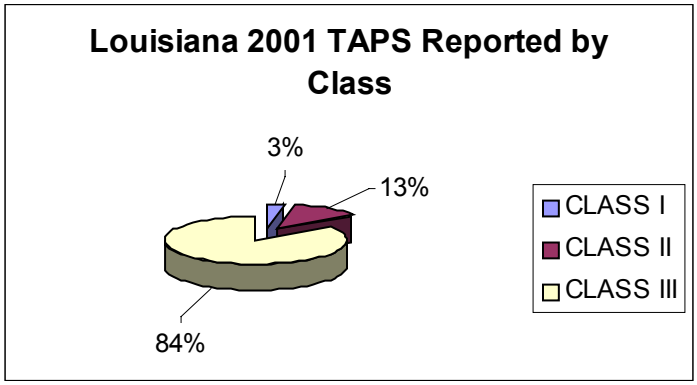
From 1991-2001, there was a 65.5% decrease for all chemicals, a 79.5% decrease in Class I Carcinogens, and a 69.1% decrease in Class II Chemicals. Class III Chemicals decreased by 64%, and benzene emissions decreased by 89.3% from 1991 levels. Benzene emissions comprise the largest amount of Class I emissions, and **are** included in the Class I totals, and the Total Chemicals figures. Class I Carcinogens are known and probable human carcinogens. Class II Chemicals are *suspected* human carcinogens and known or suspected human reproductive toxins. Class III Chemicals are acute and chronic (non-carcinogenic) toxins. For further reference, a listing of all regulated toxic air pollutants is found in the Appendix, Table 4.

Reporting Year	Class I (pounds)	Class II (pounds)	Class III (pounds)	Benzene	Total (pounds)
1991	7,617,090	19,944,193	114,787,203	6,653,094	142,348,486
1992	6,171,423	19,829,332	94,305,368	4,934,080	120,306,123
1993	4,853,423	19,493,244	87,539,011	3,819,786	111,885,678
1994	4,244,180	19,540,357	89,864,668	3,355,639	113,649,605
1995	4,095,580	17,237,750	85,395,105	3,271,013	106,728,435
1996	4,030,516	16,437,071	82,970,483	3,023,722	103,438,070
1997	4,007,131	10,024,287	73,351,604	2,740,856	87,383,022
1998	2,691,405	8,739,886	68,531,959	1,709,267	79,963,250
1999	2,125,520	6,680,599	58,053,348	1,271,444	66,859,467
2000	1,918,995	6,717,474	49,800,042	986,804	13,616,511
2001	1,535,128	6,154,644	41,367,228	710,885	49,057,000

Table 3-Louisiana TAPS Totals by Class, Graph 2-Louisiana TAPS Totals by Class. The following table and graph illustrate a downward trend in the total amount of Class I, II, and III Chemicals, and benzene released to the air.



Graph 2-This graph displays comparative trend data for the different TEDI classes.



Graph 3-Louisiana 2001 TAPS reported by Class. This graph compares the percentages of the 3 Classes of chemicals, as related to the total TAPS reported by class. Class I is 3.1% (1,535,128 pounds) of the total chemicals. Class II and Class III are respectively 12.5% (6,154,644 pounds) and 84.4% (41,367,228 pounds) of the total chemicals emitted.

APPENDIX

TABLE 1 - 2001 TRI RELEASES BY FACILITIES

RANK	POUNDS	FACILITY	PARISH
1	10,986,025	CYTEC INDUSTRIES, INC.	JEFFERSON
2	10,426,296	MONSANTO COMPANY	ST. CHARLES
3	5,784,462	RUBICON, INC.	ASCENSION
4	5,469,102	CF INDUSTRIES, INC.	ASCENSION
5	5,397,602	ANGUS CHEM	OUACHITA
6	5,170,024	INTERNATIONAL PAPER, MANSFIELD	DE SOTO
7	3,876,335	EXXON MOBIL BATON ROUGE REFINERY	EAST BATON ROUGE
8	3,635,743	LOUISIANA PIGMENT COMPANY L.P.	CALCASIEU
9	3,635,573	SAFETY KLEEN, INC.	IBERVILLE
10	3,358,054	CHEMICAL WASTE MANAGEMENT LAKE	CALCASIEU
11	3,194,864	CLECO CORPORATION - DOLET HILLS	DE SOTO
12	3,094,101	TRIAD NITROGEN, INC.	ASCENSION
13	2,955,193	RIVERWOOD INT. - PLANT #31	OUACHITA
14	2,248,150	INTERNATIONAL PAPER - LA MILL	MOREHOUSE
15	2,105,493	THE DOW CHEMICAL COMPANY	IBERVILLE
16	2,061,588	BASF CORPORATION	ASCENSION
17	2,006,592	EXXON CHEMICAL, BATON ROUGE	EAST BATON ROUGE
18	1,999,819	BOISE CASCADE CORPORATION	BEAUREGARD
19	1,901,930	BIG CAJUN 2	POINTE COUPEE
20	1,849,467	GAYLORD CONTAINER CORPORATION	WASHINGTON
21	1,713,915	CROMPTON MFTG. GEISMAR	ASCENSION
22	1,708,513	PCS NITROGEN FERTILIZER L.P.	ASCENSION
23	1,580,803	FIRESTONE POLYMERS	CALCASIEU
24	1,553,241	CITGO PETROLEUM CORPORATION	CALCASIEU
25	1,296,779	GEORGIA PACIFIC CORP. - PORT HUDSON	EAST BATON ROUGE
26	1,262,310	HONEYWELL INTERNATIONAL, INC.	EAST BATON ROUGE
27	1,205,168	STONE CONTAINER CORP.	JACKSON
28	1,201,687	INTERNATIONAL PAPER (PINEVILLE)	RAPIDES
29	1,189,926	WILLAMETTE INDUSTRIES, INC.	NATCHITOCHES
30	1,014,269	KAISER ALUMINUM AND CHEMICAL	ST. JAMES
31	997,425	SYNGENTA	IBERVILLE
32	971,605	CALUMET LUBRICANTS CO SHREVEPORT	CADDO
33	948,947	CHALMETTE REFINING L.L.C.	ST. BERNARD
34	922,299	MOTIVA ENTERPRISES L.L.C. - CONVENT	ST. JAMES
35	895,046	TOSCO REFINING CO.	PLAQUEMINES
36	873,835	UNION CARBIDE CORPORATION, TAFT	ST. CHARLES
37	865,890	EXXON CHEMICAL COMPANY	EAST BATON ROUGE
38	765,764	CONAGRA BROILER COMPANY	UNION
39	762,377	CONOCO LAKE CHARLES REFINERY	CALCASIEU
40	753,716	IMC PHOSPHATES - FAUSTINA	ST. JAMES
41	729,174	TEMBEC USA L.L.C.	WEST FELICIANA
42	680,609	SHELL NORCO CHEMICAL PLANT - EAST	ST. CHARLES
43	645,249	SHELL CHEMICAL COMPANY	ASCENSION
44	633,078	DSM COPOLYMER, INC.	WEST BATON ROUGE
45	620,222	PPG INDUSTRIES, INC.	CALCASIEU
46	605,702	US DOD US ARMY JRTC	VERNON
47	602,347	DU PONT PONTCHARTRAIN WORKS	ST. JOHN THE BAPTIST
48	538,554	CROMPTOM CORP. TAFT FACILITY	ST. CHARLES
49	510,306	MOTIVA - NORCO REFINERY	ST. CHARLES
50	486,485	GEORGIA GULF CORPORATION	IBERVILLE
51	481,194	DUPONT DOW ELASTOMERS L.L.C.	ST. JOHN THE BAPTIST
52	475,149	CONAGRA BROILER COMPANY	NATCHITOCHES
53	456,127	BUNGE CORP	ST. CHARLES
54	449,785	UOP - SHREVEPORT PLANT	CADDO
55	435,356	MURPHY OIL USA, INC.	ST. BERNARD
56	395,811	BORDEN CHEMICAL AND PLASTICS	ASCENSION

TABLE 1 - 2001 TRI RELEASES BY FACILITIES

57	393,337	OCCIDENTAL CHEMICAL CORP.	ST. CHARLES
58	369,520	ORION REFINING CORPORATION	ST. CHARLES
59	368,084	MELAMINE CHEMICALS, INC.	ASCENSION
60	332,426	MARATHON ASHLAND PETROLEUM L.L.C.	ST. JOHN THE BAPTIST
61	329,741	AVONDALE SHIPYARDS, MAIN YARD	JEFFERSON
62	310,290	FARMLAND INDUSTRIES, INC.	GRANT
63	306,590	SASOL NORTH AMERICA LAKE CHARLES	CALCASIEU
64	306,324	RODEMACHER POWER STATION	RAPIDES
65	302,866	HONEYWELL INTERNATIONAL, INC.	ASCENSION
66	290,987	WILLIAMS OLEFINS L.L.C. GEISMAR	ASCENSION
67	284,567	SHELL NORCO CHEMICAL PLANT - WEST	ST. CHARLES
68	264,450	LYONDELL CHEMICAL	CALCASIEU
69	262,212	ENTERGY - ROY S. NELSON GENERATING PLANT	CALCASIEU
70	254,135	GMTG SHREVEPORT ASSEMBLY PLANT	CADDO
71	215,245	WESTLAKE POLYMERS LP - 1 & II	CALCASIEU
72	211,322	WEYERHAEUSER CO - ARCADIA	LINCOLN
73	181,606	COSMAR COMPANY	IBERVILLE
74	166,980	CYPRESS POLYPROPYLENE PLANT	ST. CHARLES
75	166,890	PINNACLE POLYMERS	ST. JOHN THE BAPTIST
76	155,966	TAYLORTEC, INC.	TANGIPAHOA
77	154,274	DSM COPOLYMER	EAST BATON ROUGE
78	140,883	CABOT CORP VILLE PLATTE PLANT	EVANGELINE
79	128,164	MARTCO PARTNERSHIP - CHOPIN	NATCHITOCHES
80	128,073	CABOT CORP CANAL PLANT	ST. MARY
81	123,908	RESOLUTION PERFORMANCE PRODUCT	ST. CHARLES
82	119,892	AIR PRODUCTS	ORLEANS
83	118,096	SID RICHARDSON CARBON COMPANY	WEST BATON ROUGE
84	116,323	KOCH NITROGEN CO.	OUACHITA
85	112,705	WESTLAKE PETROCHEMICALS CORP.	CALCASIEU
86	111,838	VALERO REFINING	ST. LANDRY
87	110,780	W.R. GRACE & CO.	CALCASIEU
88	108,010	BORDEN CHEMICALS, INC.	ASCENSION
89	105,053	VULCAN MATERIALS COMPANY	ASCENSION
90	104,381	WEYERHAEUSER-SUREPINE PARTICLEBOARD	LINCOLN
91	100,579	IMC PHOSPHATES - UNCLE SAM	ST. JAMES
92	92,895	DU PONT BURNSIDE PLANT	ASCENSION
93	91,120	SANDERSON FARMS, INC.	TANGIPAHOA
94	90,786	WEATHERFORD GEMOCO	TERREBONNE
95	87,794	J. RAY MCDERMOTT, INC. FABRICATORS	ASSUMPTION
96	86,734	VIVIAN INDUSTRIES VIP, INC.	CADDO
97	86,697	RHODIA	EAST BATON ROUGE
98	81,166	DEGUSSA CORPORATION IVANHOE	ST. MARY
99	81,002	SPRINGHILL WOOD PRODUCTS	WEBSTER
100	79,852	WEYERHAEUSER - LILLIE DIVISION	UNION
101	78,695	FORMOSA PLASTICS CORPORATION	EAST BATON ROUGE
102	78,144	CHEVRON PHILLIPS CHEMICAL CO	ST. JAMES
103	69,417	CS METALS OF LOUISIANA, L.L.C.	ST. JAMES
104	66,716	SIGMA COATINGS USA B.V.	JEFFERSON
105	63,698	LAKE CHARLES CARBON COMPANY	CALCASIEU
106	63,062	WESTLAKE POLYMERS CORPORATION	CALCASIEU
107	59,620	BASELL USA, INC.	CALCASIEU
108	59,483	CHEVRON CHEMICAL COMPANY	PLAQUEMINES
109	59,384	CALUMET LUBRICANTS CO.	BOSSIER
110	58,552	SHAW SUNLAND FABRICATORS, INC.	LIVINGSTON
111	58,500	UNIVERSAL FABRICATOR L.L.C.	IBERIA
112	53,265	INDUSTRIAL PIPE AND PLASTIC	CALCASIEU
113	48,863	AMITE FOUNDRY & MACHINE, INC.	TANGIPAHOA

TABLE 1 - 2001 TRI RELEASES BY FACILITIES

114	48,144	GEORGIA PACIFIC CORP.	DE SOTO
115	47,000	ROYAL FIBERGLASS POOLS, INC.	ST. MARTIN
116	44,001	ENTERGY-WATERFORD 1 - 3 COMPLEX	ST. CHARLES
117	42,083	GEORGIA GULF LAKE CHARLES, L.L.C.	CALCASIEU
118	41,244	INTERNATIONAL PAINTING CORP.	WEST BATON ROUGE
119	40,600	TOPSIDE FABRICATION	IBERIA
120	40,233	AIR PRODUCTS CHEM	IBERVILLE
121	38,513	EVANS HARVEY, INC.	JEFFERSON
122	38,400	TEMPLE-INLAND FOREST PRODUCTS	BEAUREGARD
123	37,862	DELTECH CORPORATION	EAST BATON ROUGE
124	36,223	LOUISIANA PACIFIC CORPORATION	LA SALLE
125	34,727	WESTVACO CORPORATION	BEAUREGARD
126	31,634	DELTA ENVIRONMENTAL PRODUCTS	LIVINGSTON
127	31,560	ONDEO NALCO CHEMICAL COMPANY	ST. JOHN THE BAPTIST
128	31,100	LOUISIANA BLASTING AND COATING	IBERIA
129	29,406	SHAW SSS FABRICATORS, INC.	WEST BATON ROUGE
130	28,393	PLACID REFINING COMPANY	WEST BATON ROUGE
131	28,271	GULF WIRE CORPORATION	ORLEANS
132	27,647	SPECTRUM CONTROL TECH., INC.	ORLEANS
133	27,442	EXIDE CORPORATION - BR SMELTER	EAST BATON ROUGE
134	26,800	CP LOUISIANA, INC.	JEFFERSON
135	26,242	SHAW ALLOY PIPING PRODS, INC.	CADDO
136	25,946	OMEGA PROTEIN, INC.	CAMERON
137	25,808	TUBOSCOPE VETCO-AMELIA COATING	ASSUMPTION
138	24,978	BORDEN CHEM & PLASTICS	WEST BATON ROUGE
139	24,607	BIOLAB, INC.	CALCASIEU
140	24,520	CONRAD INDUSTRIES, INC.	ST. MARY
141	24,256	GULF ISLAND L.L.C.	TERREBONNE
142	24,182	CALUMET LUBRICANTS	WEBSTER
143	23,726	BOLLINGER SHIPYARDS LOCKPORT	LAFOURCHE
144	21,981	INEOS FLUOR AMERICAS L.L.C.	IBERVILLE
145	21,592	AIR PRODUCTS & CHEMICALS, INC.	ASCENSION
146	20,597	WEYERAEUSER - ZWOLLE DIVISION	SABINE
147	19,547	GRANT CHEMICAL - DIV. OF FERRO	EAST BATON ROUGE
148	19,319	PRAXAIR, INC. GEISMAR	ASCENSION
149	18,431	COLUMBIAN CHEMICALS COMPANY	ST. MARY
150	17,338	RUSKIN COMPANY	WEBSTER
151	17,252	G. E. COMMERCIAL TRANSFORMER	CADDO
152	17,124	ACME BRICK	BIENVILLE
153	17,000	4-D CORROSION CONTROL SPECIALIST	IBERIA
154	16,581	C OCCIDENTAL CHEM CORP.	ST. JAMES
155	16,454	TRINITY MARINE PORT ALLEN	WEST BATON ROUGE
156	16,402	LOCKHEED MARTIN	ORLEANS
157	16,044	BAYOU STEEL CORP.	ST. JOHN THE BAPTIST
158	15,500	EDO SPECIALTY PLASTICS	EAST BATON ROUGE
159	15,352	EXXON CHEMICAL AMERICAS BR POLYMER	EAST BATON ROUGE
160	15,229	BIOPRODUCTS OF LOUISIANA, L.L.C.	IBERVILLE
161	15,198	SHINTECH LOUISIANA, L.L.C.	WEST BATON ROUGE
162	15,093	BOLLINGER MARINE FABRICATORS	ST. MARY
163	14,654	EQUISTAR CHEMICALS, L.P.	CALCASIEU
164	14,288	OMEGA PROTEIN, INC.	VERMILION
165	13,696	INEOS OXIDE COMPANY	IBERVILLE
166	13,603	ATOFINA	IBERVILLE
167	13,516	SUPERIOR TIE AND TIMBER	CADDO
168	12,047	DURAWOOD TREATING COMPANY	RAPIDES
169	11,977	WEYERHAEUSER - SIMSBORO EWP	LINCOLN
170	11,789	WESTLAKE STYRENE L.P.	CALCASIEU

TABLE 1 - 2001 TRI RELEASES BY FACILITIES

171	11,764	CMP COATINGS, INC.	PLAQUEMINES
172	11,297	ST JAMES TERMINAL	ST. JAMES
173	10,456	WESTLAKE STYRENE LP - MARINE TERMINAL	CALCASIEU
174	10,337	KOPPERS INDUSTRIES, INC.	DE SOTO
175	10,007	COLFAX TREATING COMPANY	RAPIDES
176	9,441	GUIDE LOUISIANA, L.L.C.	OUACHITA
177	9,200	INTERCONTINENTAL TERMINALS	WEST BATON ROUGE
178	9,097	UNITED STATES MARINE, INC.	ORLEANS
179	8,500	JEFFERSON FIBERGLASS CO, INC.	JEFFERSON
180	7,602	SHELL CHEMICAL - ST. ROSE FACILITY	ST. CHARLES
181	7,536	AMAX METALS RECOVERY, INC.	PLAQUEMINES
182	7,412	LOUISIANA FIBERGLASS, L.L.C	WASHINGTON
183	6,868	NALCO/EXXON ENERGY CHEMICAL	LAFAYETTE
184	6,823	CARBOLINE COMPANY	CALCASIEU
185	6,356	SHAW PROCESS FABRICATORS	OUACHITA
186	6,314	ASHLAND DISTRIBUTION CO.	EAST BATON ROUGE
187	6,177	MICRO CHEMICAL COMPANY	FRANKLIN
188	5,900	GULF COAST CHEMICAL, INC.	VERMILION
189	5,815	CALCASIEU REFINING COMPANY	CALCASIEU
190	5,660	THE DOW CHEMICAL COMPANY	ASSUMPTION
191	5,656	AVIATION EXTERIORS LA., INC.	IBERIA
192	5,347	GROW AUTOMOTIVE	EAST BATON ROUGE
193	5,200	STARLING, INC.	LIVINGSTON
194	5,128	ARIZONA CHEMICAL	ALLEN
195	5,128	TUBOSCOPE HARVEY COATING PLANT	JEFFERSON
196	5,000	ORLEANS MARBLE, INC.	JEFFERSON
197	4,943	PENNZOIL - QUAKER STATE COMPANY	CADDO
198	4,823	AMERCHOL CORP	ST. HELENA
199	4,800	STOCKHAUSEN LOUISIANA, LTD.	ST. JOHN THE BAPTIST
200	4,780	RESIN SYSTEMS, INC.	CALCASIEU
201	4,587	DYNEA USA, INC. (NESTE RESINS)	WINN
202	4,320	AIR LIQUIDE	IBERVILLE
203	4,043	DYNEGY MIDSTREAM SERVICES	PLAQUEMINES
204	3,770	ORMET CORPORATION	ASCENSION
205	3,472	ARCH CHEMICALS INCORPORATED	CALCASIEU
206	3,287	TETRA CHEMICALS, INC.	CALCASIEU
207	3,250	CHEMCENTRAL/NEW ORLEANS	JEFFERSON
208	3,131	ECLECTIC PRODUCTS, INC.	RAPIDES
209	2,980	ARCH CHEMICALS, INC.	CADDO
210	2,971	EVANS HARVEY CORP.	JEFFERSON
211	2,879	BAKER PETROLITE - RAYNE FACILITY	ACADIA
212	2,838	COASTAL CHEMICAL CO L.L.C.	VERMILION
213	2,788	BORDEN CHEMICAL, INC.	RAPIDES
214	2,757	CYPRESS CATALYST PLANT	ST. CHARLES
215	2,729	KENNER TERMINAL (MOTIVA)	JEFFERSON
216	2,620	VALENTINE PAPER COMPANY	LAFOURCHE
217	2,535	PEARL RIVER POLYMERS	ST. TAMMANY
218	2,519	EXXON MOBIL CHEM CO. (BATON ROUGE)	EAST BATON ROUGE
219	2,516	BAKER MFG	RAPIDES
220	2,431	TECHE POWER STATION	ST. MARY
221	2,400	PRAXAIR DISTRIBUTION, INC.	ST. CHARLES
222	2,377	PIONEER AMERICAS L.L.C.	IBERVILLE
223	2,308	THE MARBLE QUARRY, INC.	ST. TAMMANY
224	2,205	CERTAINTEED CORPORATION	CALCASIEU
225	2,176	EXIDE CORPORATION	CADDO
226	2,172	IMC - PHOSPHATES, INC. TAFT PLANT	ST. CHARLES
227	2,154	VOPAK	LAFAYETTE

TABLE 1 - 2001 TRI RELEASES BY FACILITIES

228	2,023	ALBEMARLE CORPORATION PROCESS	EAST BATON ROUGE
229	2,020	BRENNTAG SOUTHWEST, INC.	IBERVILLE
230	2,018	BIG RIVER INDUSTRIES - GRAVELITE	POINTE COUPEE
231	2,002	WESTSIDE GALVANIZING SERVICES	WEST BATON ROUGE
232	1,860	SHAW CONTRUCTORS FABRICATION	ASCENSION
233	1,788	MARATHON OIL COMPANY - TERMINAL	ST. JOHN THE BAPTIST
234	1,721	TOMAH RESERVE, INC.	ST. JOHN THE BAPTIST
235	1,710	CROMPTON	JEFFERSON
236	1,562	NEW ORLEANS SHIPYARD	JEFFERSON
237	1,500	COMPLEX CHEMICALS CO, INC.	MADISON
238	1,500	JOTUN PAINTS (PRODUCTS RESEARCH)	PLAQUEMINES
239	1,461	WILSONART INT'L.	LIVINGSTON
240	1,303	MAGNOLIA CHEMICALS AND SOLVENT	JEFFERSON
241	1,300	ICO, INC.	ASSUMPTION
242	1,300	DEEP SOUTH CHEMICAL, INC.	LAFAYETTE
243	1,005	FMC CORPORATION	ST. LANDRY
244	1,000	FRYMASTER CORPORATION	CADDO
245	1,000	TEXACO USED OIL RECYCLING	JEFFERSON
246	1,000	X-CHEM, INC.	JEFFERSON
247	1,000	ENTERPRISE PRODUCTS OPERATING	WEST BATON ROUGE
248	915	ATHENS CADDO BRICK	CADDO
249	910	DEEP SOUTH PETROLEUM	LAFAYETTE
250	893	OCCIDENTAL CHEMICAL CORPORATION	ST. CHARLES
251	881	HOBSON GALVANIZING - DIVISION	PLAQUEMINES
252	850	HAYWILK GALVANIZING, INC.	JEFFERSON
253	838	SAFETY KLEEN, INC.	EAST BATON ROUGE
254	832	HAYNES INTERNATIONAL, INC.	BIENVILLE
255	758	SII CHEM TECH (SMITH INTL)	LAFAYETTE
256	739	TRIDENT CHEMICAL COMPANY	WEST BATON ROUGE
257	547	DPC (FORM JONES CHEMICALS)	ST. JOHN THE BAPTIST
258	546	BERCEN, INC.	LIVINGSTON
259	492	MARTCO PARTNERSHIP	ST. LANDRY
260	468	TRUS JOIST MACMILLAN	NATCHITOCHES
261	462	ST. MARY GALVANIZING CO.	ST. MARY
262	391	NEXEN	ST. CHARLES
263	355	FLORIEN PLYWOOD PLANT	SABINE
264	336	BOISE CASCADE CORPORATION	ALLEN
265	316	SAINT-GOBAIN CONTAINERS	LINCOLN
266	293	VULCAN PERFORMANCE CHEMICALS	CADDO
267	265	SHELL CHEMICAL CO. - TAFT PLANT	ST. CHARLES
268	255	TRINITY MARINE - MADISONVILLE	ST. TAMMANY
269	250	PENNZOIL PRODUCTS COMPANY	CADDO
270	250	STEEL FORGINGS, INC.	CADDO
271	250	SOUTHERN IONICS, INC.	CALCASIEU
272	248	KIK-LOUISIANA, INC.	ST. TAMMANY
273	224	GREAT LAKES CARBON CORP.	EAST BATON ROUGE
274	187	CAMECO INDUSTRIES - THIBODAUX FACILITY	LAFOURCHE
275	164	PROCTER & GAMBLE MANU. CO.	RAPIDES
276	150	ALLIANCE COMPRESSORS	NATCHITOCHES
277	129	VOPAK GEISMAR	ASCENSION
278	96	POLY ONE	IBERVILLE
279	87	SOLUTIA, INC.	ST. CHARLES
280	67	DIS-TRAN PRODUCTS, INC.	RAPIDES
281	48	LAROCHE INDUSTRIES INC - GRAMERCY	ST. JAMES
282	43	HARCOS CHEMICALS, INC.	IBERVILLE
283	39	PECAN GROVE MARINE TERMINAL	CALCASIEU
284	26	ROHM AND HAAS	IBERIA

TABLE 1 - 2001 TRI RELEASES BY FACILITIES

285	25	WILLAMETTE VALLEY COMPANY	RAPIDES
286	21	HOOD INDUSTRIES, INC.	RED RIVER
287	16	DISCOVERY ALUMINAS	WEST BATON ROUGE
288	15	DELTA PETROLEUM CO, INC. (ST. ROSE)	ST. CHARLES
289	15	DELTA PETROLEUM COMPANY, INC.	JEFFERSON
290	15	ELDER WOOD PRESERVING, INC.	AVOYELLES
291	14	AMPACET CORP	BEAUREGARD
292	13	CERRO COPPER TUBE	BOSSIER
293	10	SCHERING- PLOUGH VETERINARY OP	EAST BATON ROUGE
294	8	SHAW SHREVEPORT	CADDO
295	7	TIFTON ALUMINUM COMPANY	RICHLAND
296	6	US GYPSUM COMPANY	ORLEANS
297	6	STOWE WOODWARD COMPANY	LINCOLN
298	5	ALAC WESTLAKE ASU	CALCASIEU
299	4	CIBA SPECIALTY CHEMICALS CORP.	IBERVILLE
300	3	GAYLORD CHEMICAL CORPORATION	WASHINGTON
301	2	WEYERHAEUSER CO - DODSON	WINN
302	2	SAFETY KLEEN SYSTEMS	RAPIDES
303	1	CROMPTON CORPORATION	JEFFERSON
304	1	HALLIBURTON ENERGY SERVICES	LAFAYETTE
305	1	NEW NGC, INC.	JEFFERSON
306	1	ENTERGY - MICHOUD PLANT	ORLEANS
307	0	ACME ROMAC, INC.	DE SOTO
308	0	ALAC NORCO ASU	ST. CHARLES
309	0	ARNOLD FOREST PRODUCTS	CADDO
310	0	AVAYA, INC.	CADDO
311	0	BALMAR, L.L.C.	LAFAYETTE
312	0	BENTON CREOSOTING WORKS	BOSSIER
313	0	BODY MASTERS SPORTS INDUSRTY	ACADIA
314	0	BOISE CASCADE ALEXANDRIA EWP	RAPIDES
315	0	CAMERON	EVANGELINE
316	0	CAPITOL MANUFACTURING CO.	ACADIA
317	0	CAPITOL STEEL	ST. TAMMANY
318	0	CAPITOL STEEL, INC.	EAST BATON ROUGE
319	0	CASTROL NORTH AMERICA, INC.	WEST BATON ROUGE
320	0	CENTRAL OIL AND SUPPLY	OUACHITA
321	0	CONAGRA BROILER CO.	BIENVILLE
322	0	CONAGRA BROILER CO. - FEEDMILL	SABINE
323	0	CRYSTAL CLEAN SERVICES L.L.C.	CADDO
324	0	DATACHEM, INC.	ST. JOHN THE BAPTIST
325	0	DAYBROOK FISHERIES, INC.	PLAQUEMINES
326	0	DUTCH QUALITY HOUSE II	BOSSIER
327	0	EAST JORDAN IRON WORKS, INC.	LIVINGSTON
328	0	ECOLOGICAL TANKS, INC.	OUACHITA
329	0	ENTERGY - WILLOW GLEN PLANT	IBERVILLE
330	0	EQUILON ENTERPRISES L.L.C.	JEFFERSON
331	0	EXXON PORT ALLEN LUBRICANTS	WEST BATON ROUGE
332	0	FHP (UNR HOME PRODS, FEDERAL HOME)	LINCOLN
333	0	FLINT INK NORTH AMERICA CORP.	OUACHITA
334	0	GAUBERT OIL CO, INC.	LAFOURCHE
335	0	GULF COAST LUBES PLANT	CALCASIEU
336	0	HARCOS CHEMICALS, INC.	CADDO
337	0	HENDRIX MANUFACTURING CO, INC.	DE SOTO
338	0	HI-PORT, INC.	EAST BATON ROUGE
339	0	INLAND PAPERBOARD AND PACKAGING	WEBSTER
340	0	KENCOIL, INC.	PLAQUEMINES
341	0	KNIGHT - CELOTEX CORPORATION	JEFFERSON

TABLE 1 - 2001 TRI RELEASES BY FACILITIES

342	0	L.L. BREWTON LBR. CO, INC.	WINN
343	0	LAND O' LAKES FARMLAND FEED	CADDO
344	0	LARD OIL COMPANY	LIVINGSTON
345	0	LIBBEY GLASS, INC.	CADDO
346	0	LIEBERMAN POWER PLANT	CADDO
347	0	LOTT OIL COMPANY - BOSSIER	BOSSIER
348	0	LOTT OIL COMPANY - LEESVILLE	VERNON
349	0	LOTT OIL COMPANY - MANSFIELD	DE SOTO
350	0	LOTT OIL COMPANY - MANY	SABINE
351	0	LOTT OIL COMPANY - NATCHITOCHES	NATCHITOCHES
352	0	MAGNOLIA CHEMICALS AND SOLVENT	LAFAYETTE
353	0	MARIAH CORPORATION, INC.	LAFAYETTE
354	0	MCKINNEY OIL COMPANY	MADISON
355	0	MID-STATES WOOD PRESERVERS	LINCOLN
356	0	NAN YA PLASTICS CORPORATION	POINTE COUPEE
357	0	NATCO-NEW IBERIA MANUFACTURING	IBERIA
358	0	NEW OFFSHORE, INC.	ST. MARY
359	0	NEXAIR, L.L.C.	OUACHITA
360	0	NORTHWEST PIPE COMPANY	BOSSIER
361	0	OHMSTEDE, INC.	CALCASIEU
362	0	OHMSTEDE, INC.	IBERVILLE
363	0	OMEGA NATCHIQ, INC.	IBERIA
364	0	OUACHITA COCA-COLA	OUACHITA
365	0	PLYMOUTH TUBE COMPANY	OUACHITA
366	0	PURINA MILLS, INC.	TANGIPAHOA
367	0	PURINA MILLS, INC.	CADDO
368	0	QPL, INC.	LAFOURCHE
369	0	SILCO DBA ELCO FOREST PRODUCTS	ST. LANDRY
370	0	STEEL FABRICATORS OF MONROE	OUACHITA
371	0	THE TRANE COMPANY	WEBSTER
372	0	TWIN BROTHERS MARINE, L.L.C.	ST. MARY
373	0	UNICHEM / B.J. SERVICES USA	IBERIA
374	0	W.B. MCCARTNEY OIL CO, INC.	LA SALLE
375	0	WATERBURY COMPANIES, INC.	TANGIPAHOA
376	0	WECHEM, INC.	JEFFERSON

TABLE 2 - 2001 TRI RELEASES BY CHEMICAL

SUBSTANCE	RANK	# FAC	AIR	WATER	LAND	INJECTION	ON-SITE TOTAL	DISPOSAL	ALL RELEASES
1,1,1,2-TETRACHLOROETHANE	172	4	1,359	0	54	0	1,413	0	1,413
1,1,1-TRICHLOROETHANE	69	4	110,587	5	169	0	110,761	1	110,762
1,1,2,2-TETRACHLORO-1-FLUOROETHANE	213	1	25	0	0	0	25	0	25
1,1,2,2-TETRACHLOROETHANE	165	6	970	0	961	0	1,931	436	2,367
1,1,2-TRICHLOROETHANE	127	8	11,251	1	554	0	11,806	216	12,022
1,1-DICHLORO-1-FLUOROETHANE	72	2	105,513	5	0	0	105,518	0	105,518
1,1-DICHLOROETHANE	114	7	17,274	26	0	0	17,300	6	17,306
1,1-DIMETHYL HYDRAZINE	188	2	402	0	0	0	402	0	402
1,2,3-TRICHLOROPROPANE	183	3	683	0	0	0	683	0	683
1,2,4-TRICHLOROBENZENE	227	1	3	0	0	0	3	160	163
1,2,4-TRIMETHYLBENZENE	59	46	164,126	197	1,101	0	165,424	15,213	180,637
1,2-BUTYLENE OXIDE	154	2	2,736	0	0	0	2,736	0	2,736
1,2-DIBROMOETHANE	174	1	1,373	6	0	0	1,379	0	1,379
1,2-DICHLORO-1,1,2-TRIFLUORETHANE	107	2	20,251	5	0	0	20,256	0	20,256
1,2-DICHLORO-1,1-DIFLUOROET	212	1	25	0	0	0	25	0	25
1,2-DICHLOROBENZENE	134	2	3,500	16	0	4,800	8,316	91	8,407
1,2-DICHLOROETHANE	58	16	164,988	1,441	129	110	166,668	2,551	169,219
1,2-DICHLOROETHYLENE	153	4	2,750	22	0	0	2,772	8	2,780
1,2-DICHLOROPROPANE	141	4	5,758	27	77	0	5,862	0	5,862
1,2-PHENYLENEDIAMINE	192	1	362	0	0	0	362	0	362
1,3-BUTADIENE	64	25	148,526	119	2	0	148,647	0	148,647
1,3-DICHLOROPROPYLENE	139	2	6,110	27	0	0	6,137	0	6,137
1,3-PHENYLENEDIAMINE	217	1	12	0	0	0	12	0	12
1,4-DICHLORO-2-BUTENE	146	2	781	0	0	3,700	4,481	0	4,481
1,4-DIOXANE	118	4	3,775	12,443	0	0	16,218	1,004	17,222
1-CHLORO-1,1,2,2-TETRAFLUORETHANE	149	1	3,591	0	0	0	3,591	0	3,591
1-CHLORO-1,1-DIFLUOROETHANE	119	1	15,657	5	0	0	15,662	0	15,662
2,2-DICHLORO-1,1,1-TRIFLUORETHANE	82	4	59,264	5	0	0	59,269	0	59,269
2,3-DICHLOROPROPENE	209	1	45	0	0	0	45	0	45
2,4-D	242	1	0	0	0	0	0	0	0
2,4-DIAMINOTOLUENE	196	1	250	0	0	0	250	0	250
2,4-DINITROPHENOL	238	2	0	0	0	0	0	0	0
2,6-XYLIDINE	226	1	5	0	0	0	5	0	5
2-CHLORO-1,1,1,2-TETRAFLUORETHANE	77	2	70,527	5	0	0	70,532	0	70,532
2-CHLORO-1,1,1-TRIFLUOROETHANE	131	2	9,177	0	0	0	9,177	0	9,177
2-ETHOXYETHANOL	203	1	51	43	0	0	94	0	94
2-MERCAPTOBENZOTHIAZOLE	122	1	3,000	0	0	12,000	15,000	201,000	216,000
2-METHOXYETHANOL	136	2	2,134	5,531	0	0	7,665	0	7,665
2-METHYLLACTONITRILE	245	1	0	0	0	0	0	0	0
2-NITROPHENOL	197	2	32	123	0	0	155	0	155
2-NITROPROPANE	115	1	16,786	226	0	0	17,012	0	17,012
3,3-DICHLORO-1,1,1,2,2-PENTAFLUOROPROPANE	132	1	8,700	0	0	0	8,700	0	8,700
4,4'-ISOPROPYLIDENEDIPHENOL	164	6	226	1,700	151	0	2,077	616	2,693
4,4'-METHYLENEDIANILINE	83	2	1,452	0	0	57,000	58,452	610	59,062
4,6-DINITRO-O-CRESOL	208	1	51	0	0	0	51	0	51
4-AMINOAZOBENZENE	206	1	0	0	0	59	59	0	59
4-AMINOBIPHENYL	215	1	0	0	0	16	16	0	16
4-NITROPHENOL	185	2	581	0	0	0	581	0	581
ACETALDEHYDE	23	18	872,397	14,333	1,020	199,000	1,086,750	8	1,086,758
ACETAMIDE	251	1	0	0	0	0	0	0	0
ACETONITRILE	9	7	44,413	696	0	3,190,000	3,235,109	9	3,235,118
ACETOPHENONE	117	2	2,621	0	0	13,630	16,251	0	16,251
ACIFLUORFEN SODIUM SALT	248	1	0	0	0	0	0	0	0
ACROLEIN	156	2	2,603	1	0	0	2,604	0	2,604
ACRYLAMIDE	20	2	185	34	0	1,200,000	1,200,219	1,910	1,202,129
ACRYLIC ACID	116	7	11,931	4,385	0	0	16,316	5,500	21,816
ACRYLONITRILE	22	7	9,808	2	0	1,100,000	1,109,810	30	1,109,840
ALLYL ALCOHOL	74	5	15,526	5,425	0	72,000	92,951	0	92,951
ALLYL CHLORIDE	106	6	20,331	0	0	0	20,331	0	20,331
ALUMINUM (FUME OR DUST)	95	3	29,713	365	0	0	30,078	0	30,078
AMETRYN	223	1	0	6	0	0	6	0	6
AMMONIA	1	77	12,304,532	917,883	4,816	4,446,211	17,673,442	69,294	17,742,736
ANILINE	27	8	36,725	0	2	852,893	889,620	359	889,979
ANTHRACENE	181	10	479	360	2	0	841	284	1,125
ANTIMONY	93	3	121	587	32,000	0	32,708	797	33,505
ANTIMONY COMPOUNDS	97	8	1,118	597	28,175	0	29,890	3,586	33,476
ARSENIC	130	3	0	5	10,000	0	10,005	670	10,675
ARSENIC COMPOUNDS	99	8	1,106	367	24,585	0	26,058	0	26,058
ASBESTOS (FRIABLE)	24	10	3	0	1,064,418	0	1,064,421	517,301	1,581,722
ATRAZINE	108	1	18,816	668	0	535	20,019	13,628	33,647
BARIUM	105	1	0	0	21,000	0	21,000	575	21,575
BARIUM COMPOUNDS	7	18	124,999	47,944	3,295,411	514	3,468,868	10,454	3,479,322

TABLE 2 - 2001 TRI RELEASES BY CHEMICAL

BENZENE	31	59	555,702	942	1,164	81,341	639,149	3,261	642,410
BENZO (GHI) PERYLENE	175	34	1,229	9	91	0	1,329	10,963	12,292
BENZOYL CHLORIDE	194	2	330	0	0	0	330	0	330
BENZYL CHLORIDE	207	3	53	0	0	0	53	0	53
BERYLLIUM	255	1	0	0	0	0	0	0	0
BIFENTHRIN	187	1	500	0	0	0	500	0	500
BIPHENYL	145	8	4,456	43	54	0	4,553	160	4,713
BIS(2-CHLORO-1-METHYLETHYL)	163	1	2,089	2	6	0	2,097	0	2,097
BIS(2-CHLOROETHYL) ETHER	198	3	128	1	0	0	129	16	145
BIS(CHLOROMETHYL) ETHER	254	1	0	0	0	0	0	0	0
BORON TRIFLUORIDE	244	3	0	0	0	0	0	0	0
BROMINE	124	5	13,759	0	0	0	13,759	41	13,800
BROMOMETHANE	157	1	2,577	0	12	0	2,589	0	2,589
BUTYL ACRYLATE	151	4	3,318	62	0	0	3,380	0	3,380
BUTYRALDEHYDE	140	1	5,940	0	0	0	5,940	0	5,940
CADMIUM	220	1	0	0	9	0	9	0	9
CADMIUM COMPOUNDS	240	1	0	0	0	0	0	0	0
CARBOFURAN	186	1	500	5	0	0	505	0	505
CARBON DISULFIDE	40	14	332,724	0	0	16,718	349,442	0	349,442
CARBON TETRACHLORIDE	54	12	98,130	39	5,929	95,935	200,033	445	200,478
CARBONYL SULFIDE	44	11	286,287	0	0	0	286,287	0	286,287
CATECHOL	144	9	792	3,972	260	0	5,024	351	5,375
CHLORDANE	252	1	0	0	0	0	0	0	0
CHLORINE	39	78	332,311	36,424	5	0	368,740	1,067	369,807
CHLORINE DIOXIDE	109	6	19,861	0	0	0	19,861	0	19,861
CHLOROACETIC ACID	202	1	98	0	0	0	98	0	98
CHLOROBENZENE	38	11	299,235	53	0	83,634	382,922	204	383,126
CHLORODOFLUOROMETHANE	25	9	929,058	2,891	0	0	931,949	0	931,949
CHLOROETHANE	126	14	11,890	1	0	0	11,891	6	11,897
CHLOROFORM	57	11	58,017	5,923	665	110,486	175,091	144	175,235
CHLOROMETHANE	42	10	238,120	92	121	80,560	318,893	0	318,893
CHLOROPRENE	36	5	334,944	0	0	62,000	396,944	0	396,944
CHLOROTRIFLUOROMETHANE	110	2	18,380	5	0	0	18,385	0	18,385
CHROMIUM	173	23	1,394	11	0	0	1,405	22,148	23,553
CHROMIUM COMPOUNDS	68	21	1,812	857	108,873	0	111,542	23,355	134,897
COBALT	222	3	6	0	0	0	6	57	63
COBALT COMPOUNDS	75	15	378	8,477	66,858	2,700	78,413	92,326	170,739
COPPER	65	15	126,979	710	2,426	2,200	132,315	685	133,000
COPPER COMPOUNDS	43	34	5,626	17,074	274,009	7	296,716	177,458	474,174
CREOSOTE	87	4	45,316	312	0	0	45,628	0	45,628
CRESOL (MIXED ISOMERS)	66	12	25,843	2,769	82	97,130	125,824	360	126,184
CROTONALDEHYDE	230	1	1	0	1	0	2	0	2
CUMENE	86	22	44,772	338	865	0	45,975	114	46,089
CUMENE HYDROPEROXIDE	166	1	1,907	0	0	0	1,907	0	1,907
CYANIDE COMPOUNDS	26	6	15,233	76	34,000	866,000	915,309	680	915,989
CYCLOHEXANE	28	37	699,251	561	1,455	46,089	747,356	525	747,881
DECABROMODIPHENYL OXIDE	47	1	0	0	270,000	0	270,000	0	270,000
DI(2-ETHYLHEXYL) PHTHALATE	121	3	0	0	15,000	0	15,000	912	15,912
DIAMINOTOLUENE (MIXED ISOMERS)	100	4	7,633	4,992	0	13,000	25,625	15,445	41,070
DIAZINON	257	1	0	0	0	0	0	0	0
DIBENZOFURAN	235	1	0	0	0	0	0	0	0
DIBUTYL PHTHALATE	228	3	3	0	0	0	3	0	3
DICAMBA	259	1	0	0	0	0	0	0	0
DICHLOROBENZENE (MIXED ISOMERS)	216	3	13	0	0	0	13	290	303
DICHLOROBROMOMETHANE	143	1	5,024	0	218	0	5,242	0	5,242
DICHLORODIFLUOROMETHANE	81	4	60,865	5	0	0	60,870	0	60,870
DICHLOROFLUOROMETHANE	158	1	2,346	0	0	0	2,346	0	2,346
DICHLOROMETHANE	89	8	25,097	28	175	10,999	36,299	172	36,471
DICHLOROTETRAFLUOROETHANE	85	2	52,111	5	0	0	52,116	0	52,116
DICYCLOPENTADIENE	128	9	11,223	140	0	0	11,363	42	11,405
DIETHANOLAMINE	96	15	22,266	3,238	4,500	0	30,004	902	30,906
DIISOCYANATES	29	16	1,304	0	700,000	0	701,304	75,486	776,790
DIMETHYL PHTHALATE	262	2	0	0	0	0	0	0	0
DIMETHYLAMINE	178	5	1,143	5	0	0	1,148	280	1,428
DINITROBUTYL PHENOL	182	3	836	0	0	0	836	0	836
DINITROTOLUENE (MIXED ISOMERS)	129	4	7,193	8	15	3,000	10,216	191	10,407
DIOXIN AND DIOXIN-LIKE COMPOUNDS (In Grams)	169	63	91	607	910	0	1,609	1,407	3,016
DIPHENYLAMINE	90	6	14,001	0	15,000	6,890	35,891	24,200	60,091
EPICHLOROHYDRIN	80	8	56,629	5	4,440	0	61,074	1,422	62,496
ETHYL ACRYLATE	142	1	5,470	9	0	0	5,479	2	5,481
ETHYL DIPROPYLTHIOCARBAMATE	167	1	518	20	0	1,146	1,684	0	1,684
ETHYLBENZENE	46	70	274,402	422	1,527	0	276,351	10,847	287,198
ETHYLENE	10	48	3,004,996	0	0	0	3,004,996	0	3,004,996
ETHYLENE GLYCOL	34	41	301,244	14,828	221,330	11,267	548,669	33,447	582,116

TABLE 2 - 2001 TRI RELEASES BY CHEMICAL

ETHYLENE OXIDE	76	10	75,849	108	0	0	75,957	7	75,964
FENBUTATIN OXIDE	171	1	664	0	0	780	1,444	0	1,444
FENOXYCARB	247	1	0	0	0	0	0	0	0
FLUOMETURON	258	1	0	0	0	0	0	0	0
FLUORINE	160	1	2,280	0	0	0	2,280	0	2,280
FORMALDEHYDE	4	34	382,942	28,912	2,825	8,863,245	9,277,924	19,306	9,297,230
FORMIC ACID	12	17	30,021	1,413	0	2,700,810	2,732,244	3,420	2,735,664
FREON 113	63	3	149,140	1,272	0	0	150,412	0	150,412
GLYCOL ETHERS	71	41	91,907	11,185	4,708	1,353	109,153	0	109,153
HEPTACHLOR	221	1	1	0	6	0	7	0	7
HEXACHLORO-1,3-BUTADIENE	179	4	1,008	0	0	0	1,008	580	1,588
HEXACHLOROBENZENE	135	9	615	14	7,500	0	8,129	1	8,130
HEXACHLOROETHANE	190	3	371	0	16	0	387	90	477
HYDRAZINE	189	3	388	0	0	0	388	0	388
HYDRAZINE SULFATE	101	1	0	0	0	24,000	24,000	0	24,000
HYDROCHLORIC ACID	13	51	2,455,859	104	39	0	2,456,002	0	2,456,002
HYDROGEN CYANIDE	92	6	32,940	72	0	0	33,012	1	33,013
HYDROGEN FLUORIDE	33	18	613,860	250	0	0	614,110	0	614,110
HYDROQUINONE	88	3	1,397	0	0	42,000	43,397	351	43,748
ISOBUTYRALDEHYDE	191	1	376	0	0	0	376	0	376
LEAD	98	39	5,366	1,564	22,107	0	29,037	116,192	145,229
LEAD COMPOUNDS	30	60	37,273	8,620	635,549	0	681,442	24,256	705,698
MALEIC ANHYDRIDE	84	8	56,317	0	0	0	56,317	96	56,413
MANGANESE	5	34	17,744	65,589	4,464,497	0	4,547,830	104,095	4,651,925
MANGANESE COMPOUNDS	16	25	52,800	336,422	1,572,925	0	1,962,147	26,394	1,988,541
MERCURY	152	16	1,432	21	1,577	0	3,030	726	3,756
MERCURY COMPOUNDS	148	32	3,035	64	1,204	1	4,305	4,967	9,272
METHACRYLONITRILE	150	1	0	0	0	3,500	3,500	0	3,500
METHANOL	2	96	14,301,331	313,923	319,417	2,434,043	17,368,714	748	17,369,462
METHYL ACRYLATE	91	3	3,290	22	0	31,164	34,476	0	34,476
METHYL ETHYL KETONE	21	38	1,068,315	8,607	853	98,960	1,176,735	1,446	1,178,181
METHYL HYDRAZINE	199	1	123	0	0	0	123	0	123
METHYL ISOBUTYL KETONE	55	21	149,855	30	0	49,000	198,885	0	198,885
METHYL ISOTHIOCYANATE	253	1	0	0	0	0	0	0	0
METHYL METHACRYLATE	52	4	15,161	10	0	189,000	204,171	1,300	205,471
METHYL TERT-BUTYL ETHER	41	25	321,122	897	3,140	0	325,159	52	325,211
MOLYBDENUM TRIOXIDE	56	18	10,008	796	179,600	0	190,404	301,756	492,160
MONOCHLOROPENTAFLUOROETHANE	120	2	15,549	5	0	0	15,554	0	15,554
M-XYLENE	137	2	5,422	0	1,865	0	7,287	128	7,415
N,N-DIMETHYLFORMAMIDE	67	4	17,502	16,000	0	80,000	113,502	3,515	117,017
NAPHTHALENE	70	52	103,396	3,629	2,191	0	109,216	2,347	111,563
N-BUTYL ALCOHOL	49	23	252,158	422	240	0	252,820	176	252,996
N-HEXANE	6	54	4,050,301	485	2,788	64,528	4,118,102	6,425	4,124,527
NICKEL	111	24	966	614	16,803	0	18,383	38,587	56,970
NICKEL COMPOUNDS	50	33	8,665	6,923	194,728	2,850	213,166	489,724	702,890
NITRATE COMPOUNDS	3	45	0	9,784,335	88,307	4,062,865	13,935,507	10,323	13,945,830
NITRIC ACID	8	19	177,334	0	4,500	3,081,902	3,263,736	9,977	3,273,713
NITRILOTRIACETIC ACID	162	2	0	35	0	2,100	2,135	0	2,135
NITROBENZENE	51	4	5,566	106	0	200,000	205,672	2,513	208,185
NITROGLYCERIN	123	1	14,892	0	0	0	14,892	0	14,892
N-METHYL-2-PYRROLIDONE	79	7	62,620	0	0	950	63,570	0	63,570
N-NITROSODIPHENYLAMINE	219	2	10	0	0	0	10	0	10
O-CRESOL	233	1	1	0	0	0	1	0	1
OCTACHLOROSTYRENE	237	1	0	0	0	0	0	0	0
O-TOLUIDINE	125	4	625	0	0	12,000	12,625	15	12,640
O-XYLENE	168	2	1,671	0	0	0	1,671	280	1,951
OZONE	224	3	5	0	0	0	5	0	5
PARALDEHYDE	234	1	0	0	0	0	0	0	0
PARAQUAT DICHLORIDE	78	1	1	0	66,000	0	66,001	0	66,001
P-CRESOL	155	2	660	0	0	2,000	2,660	0	2,660
PENTACHLOROBENZENE	249	3	0	0	0	0	0	0	0
PENTACHLOROETHANE	180	5	418	0	519	0	937	790	1,727
PENTACHLOROPHENOL	204	2	0	71	0	0	71	0	71
PERACETIC ACID	176	1	1,320	0	0	0	1,320	0	1,320
PERMETHRIN	218	1	10	0	0	0	10	0	10
PHENANTHRENE	193	5	5	350	0	0	355	1,855	2,210
PHENOL	35	34	209,822	11,577	33,207	153,608	408,214	3,454	411,668
PHOSGENE	195	3	324	0	0	0	324	0	324
PHOSPHORUS (YELLOW OR WHITE)	210	1	42	0	0	0	42	0	42
PHTHALIC ANHYDRIDE	45	4	24,501	0	260,000	0	284,501	260,000	544,501
PICRIC ACID	243	2	0	0	0	0	0	0	0
PIPERONYL BUTOXIDE	256	1	0	0	0	0	0	0	0
P-NITROSODIPHENYLAMINE	260	1	0	0	0	0	0	0	0
POLYCHLORINATED BIPHENYLS	211	4	0	0	30	0	30	706	736

TABLE 2 - 2001 TRI RELEASES BY CHEMICAL

POLYCYCLIC AROMATIC COMPOUNDS	73	52	83,407	8,828	7,640	0	99,876	182,569	282,445
P-PHENYLENEDIAMINE	184	1	590	0	0	0	590	0	590
PROMETRYN	246	1	0	0	0	0	0	0	0
PROPARGYL ALCOHOL	231	1	2	0	0	0	2	0	2
PROPICONAZOLE	250	1	0	0	0	0	0	0	0
PROPIONALDEHYDE	170	3	1,498	2	0	0	1,500	0	1,500
PROPYLENE	14	43	2,451,621	205	0	0	2,451,826	0	2,451,826
PROPYLENE OXIDE	103	7	21,195	0	444	0	21,639	0	21,639
PYRIDINE	102	3	57	0	0	23,000	23,057	0	23,057
QUINTOZENE	177	1	589	0	589	0	1,178	0	1,178
SEC-BUTYL ALCOHOL	62	10	150,372	1,067	0	7	151,446	2,034	153,480
SELENIUM COMPOUNDS	214	1	20	0	0	0	20	32,179	32,199
SILVER	201	2	2	98	0	0	100	378	478
SILVER COMPOUNDS	239	1	0	0	0	0	0	0	0
SIMAZINE	159	1	2,271	72	0	0	2,343	1,214	3,557
SODIUM DICAMBA	236	1	0	0	0	0	0	0	0
SODIUM DIMETHYLDITHIOCARBAM	261	2	0	0	0	0	0	0	0
SODIUM NITRITE	17	12	4	230	0	1,870,000	1,870,234	117	1,870,351
STYRENE	32	39	637,949	469	91	0	638,509	154,290	792,799
STYRENE OXIDE	241	1	0	0	0	0	0	0	0
SULFURIC ACID	11	36	2,822,348	433	200	0	2,822,981	0	2,822,981
TERT-BUTYL ALCOHOL	138	4	833	5,871	0	0	6,704	6	6,710
TETRACHLOROETHYLENE	60	19	59,263	143	378	97,483	157,267	4,121	161,388
THALLIUM	232	1	1	0	0	0	1	0	1
THALLIUM COMPOUNDS	133	1	255	250	7,900	0	8,405	0	8,405
TITANIUM TETRACHLORIDE	147	4	4,478	0	0	0	4,478	61,473	65,951
TOLUENE	15	105	2,322,411	801	5,950	60,000	2,389,162	23,384	2,412,546
TOLUENE-2,4-DIISOCYANATE	225	1	5	0	0	0	5	0	5
TOLUENEDIISOCYANATE (MIXED ISOMERS)	112	5	157	0	18,000	0	18,157	5,684	23,841
TRANS-1,3-DICHLOROPROPENE	229	1	2	0	0	0	2	0	2
TRICHLOROETHYLENE	61	14	53,327	72	403	98,220	152,022	82	152,104
TRICHLOROFLUOROMETHANE	104	2	21,500	35	0	0	21,535	0	21,535
TRIETHYLAMINE	94	6	7,515	481	0	23,100	31,096	0	31,096
TRIFLURALIN	200	1	0	0	0	115	115	0	115
VANADIUM (FUME OR DUST)	205	2	60	0	0	0	60	0	60
VANADIUM COMPOUNDS	48	16	47,705	101,530	106,301	0	255,536	104,051	359,587
VINYL ACETATE	37	6	393,670	35	0	0	393,705	1	393,706
VINYL CHLORIDE	53	12	107,921	9	0	96,023	203,953	42	203,995
VINYLIDENE CHLORIDE	161	5	2,191	6	0	0	2,197	126	2,323
XYLENE (MIXED ISOMERS)	19	93	1,384,878	518	19,687	0	1,405,083	61,475	1,466,558
ZINC (FUME OR DUST)	113	14	17,455	0	47	0	17,502	1,263,055	1,280,557
ZINC COMPOUNDS	18	72	100,447	61,855	1,378,694	683	1,541,679	967,041	2,508,720

TABLE 3 - TEDI PARISH TOTALS ALL YEARS

Parish	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Acadia	90,154	9,824	81,214	4,261	2,470	0	0	0	0	0	0
Allen	78,286	77,264	77,264	77,264	77,354	77,016	76,855	41,105	39,964	46,492	50,364
Ascension	33,088,038	32,396,482	32,832,674	29,077,881	27,604,944	28,517,218	31,220,199	26,614,216	22,939,065	16,455,827	12,157,460
Assumption	530,165	326,702	512,636	394,447	356,512	336,925	261,101	182,090	122,789	85,200	134,297
Beauregard	1,957,554	2,150,796	1,786,941	2,152,225	2,268,837	2,099,277	2,062,088	4,067,822	2,141,095	2,044,414	2,047,054
Bienville	315,900	191,983	67,860	1,794	1,788	1,798	1,796	1,798	876	586	830
Caddo	2,354,463	2,163,699	1,449,795	1,525,325	1,266,420	1,765,001	1,372,086	1,214,292	798,225	1,061,190	1,147,788
Calcasieu	17,105,279	10,226,683	6,823,987	5,967,500	5,796,277	5,042,617	5,093,725	4,874,939	4,232,095	4,135,615	3,714,106
Cameron	752,067	404,944	408,161	321,139	215,910	218,163	105,204	68,942	90,460	158,998	81,924
De Soto	534,947	574,548	716,845	2,349,079	3,421,323	4,529,665	4,905,206	4,831,725	4,650,187	4,072,531	4,081,211
East Baton Rouge	8,930,902	9,197,906	8,011,633	7,445,550	6,329,032	6,115,466	6,443,126	6,401,755	5,535,518	6,027,642	4,687,326
Evangeline	2,757,512	6,141,011	7,283,169	8,990,775	7,211,156	6,778,200	370,956	282,685	284,989	256,352	238,529
Franklin	157,342	173,277	195,179	183,231	193,950	86,898	27,867				
Grant	604,546	731,454	1,120,456	890,616	769,508	836,250	1,531,990	1,296,480	816,625	564,207	307,293
Iberia	356,012	273,416	87,038	74,425	53,390	94,242	101,546	97,373	52,542	85,966	165,323
Iberville	3,361,819	2,919,702	2,275,099	2,779,762	2,096,592	1,735,102	1,484,396	1,788,368	1,496,841	1,525,038	1,623,400
Jackson	930,189	869,132	792,150	1,565,377	1,673,152	1,579,797	1,946,203	1,984,355	237,300	1,857,925	1,311,215
Jefferson	2,773,437	1,458,295	1,348,192	1,587,927	1,431,373	1,006,718	883,196	734,531	585,829	779,212	867,682
Jefferson Davis	73,447	60,317	55,911	29,643	8,774	8,967	8,798	8,099	0	0	1,296
Lafayette	89,126	84,123	26,686	7,180	4,020	2,060	2,880	5,900	1,844		
Lafourche	643,913	594,775	513,545	474,519	797,423	127,052	109,331	156,269	107,935	84,149	75,286
La Salle	46,040	67,422	203,012	91,690	86,065	91,084	50,558	51,722	60,890	101,177	92,960
Lincoln	271,569	273,054	262,448	394,950	173,621	109,825	118,482	122,625	112,579	114,296	106,744
Livingston		26,160	17,560	21,859	7,644	7,512	7,700	30,977	36,979	44,588	48,358
Morehouse	1,993,020	1,780,456	1,529,411	1,699,624	1,564,848	1,526,777	1,457,839	1,368,678	1,996,587	2,116,063	1,950,781
Natchitoches	1,230,039	877,553	1,050,743	1,282,386	1,403,394	1,295,691	1,488,533	1,386,715	1,599,150	1,276,092	999,403
Orleans	1,051,538	463,907	410,803	369,677	231,939	253,867	232,863	221,096	201,169	186,952	196,692
Ouachita	3,559,188	2,746,932	2,206,236	3,272,596	3,603,423	3,307,114	3,075,214	3,034,471	1,732,482	1,992,063	1,802,915
Plaquemines	4,320,032	3,880,335	2,787,304	1,586,625	922,070	461,667	366,673	319,022	260,148	695,154	488,754
Pointe Coupee	100,148	82,129	62,760	60,208	25,514	242,972	284,624	342,680	371,198	315,337	168,634
Rapides	1,129,793	1,453,699	1,581,065	2,928,524	1,771,036	2,854,080	1,382,369	1,417,893	1,448,660	1,288,292	1,198,362
Richland	51,863	23,571	16,350	17,505	6,497	7,338	7,327	3,905		4,318	3,206
St. Bernard	1,094,659	762,421	774,015	850,821	790,211	660,629	610,691	667,943	602,372	742,767	860,136
St. Charles	4,765,464	4,154,977	3,364,650	3,126,466	2,276,778	2,428,177	2,188,002	2,800,397	1,908,216	1,951,123	2,241,571
St. James	15,284,010	7,527,193	5,799,168	6,546,732	8,595,999	7,616,809	7,767,731	7,187,238	6,572,573	2,920,735	1,276,559
St. John the Baptist	1,304,489	1,292,188	776,014	862,540	776,130	778,478	647,879	637,896	676,578	696,537	617,241
St. Landry	1,601,665	541,780	663,697	169,722	651,715	170,814	77,194	334,211	116,215	93,138	92,912
St. Martin	240,760	171,140	78,558	114,559	10,754	64,701	20,926	9,996	50,739	48,204	54,058
St. Mary	19,485,119	18,366,442	19,804,145	19,448,383	17,135,689	16,350,581	4,714,799	827,446	627,326	616,076	534,365
St. Tammany	60,975	101,848	92,802	42,453	28,735	13,799	21,697	18,500	26,655	12,236	1,087
Sabine	30,924	154,302	98,782	113,280	107,130	114,096	85,300	131,869	190,556	183,760	163,350
Tangipahoa	66,799	64,945	87,594	89,563	128,208	137,280	149,653	113,514	103,153	147,850	155,965
Tensas	40,453	236,383	236,382	67,145	116,615	189	95	92	53	44	37
Terrebonne	713,826	511,831	435,072	350,932	520,554	283,063	111,957	85,093	79,623	45,446	72,693
Union	320,930	282,740	66,180	77,225	70,518	74,272	114,003	86,034	90,880	80,511	81,082
Vermillion	1,551,817	779,498	629,879	467,220	255,019	111,004	220,692	95,429	41,784	14,825	14,477
Vernon	22,091	22,091	22,091	22,091	22,091	17,026	21,775	14,056	15,306	13,479	16,125
Washington	1,843,495	1,528,989	1,353,223	2,454,233	2,297,635	2,324,432	2,340,646	2,307,242	2,374,877	2,318,260	2,168,363
Webster	1,162,544	374,241	300,801	304,329	392,369	377,627	372,278	266,756	164,995	122,663	104,539
West Baton Rouge	551,635	594,191	1,105,753	1,269,764	1,492,343	1,042,502	1,491,252	1,501,464	1,168,937	923,615	898,906
West Feliciana	494,600	549,640	356,439	599,567	828,861	770,060	800,995	846,140	847,389	813,861	646,267
Winn	495,989	482,461	238,550	239,934	185,899	58,977	31,408	44,420	37,239	38,341	31,441

TABLE 4 - TEDI AIR POLLUTANTS BY CLASS

Class I	CAS #
1,2-Dibromoethane	106-93-4
Acrylonitrile	107-31-1
Arsenic & Compounds	7440-38-2
Asbestos (friable)	1332-21-4
Benzene	71-43-2
Beryllium & Compounds	7440-41-7
Bis (2-chloroethyl) Ether	111-44-4
Cadmium & Compounds	7440-43-9
Chromium VI & Compounds	7440-47-3
Epichlorohydrin	106-89-8
Ethylene Oxide	75-21-8
Formaldehyde	20-00-00
Nickel & Compounds	7440-02-0
Propylene Oxide	75-56-9
Vinyl Chloride	75-01-4

Class II	CAS #
1,1,2-Trichloroethane	79-00-5
1,2-Dichloroethane	107-06-2
1,2-Dichloropropane	78-87-5
1,3-Butadiene	106-89-8
1,3-Dichloropropylene	542-75-6
1,4-Dichlorobenzene	106-46-7
1,4-Dioxane	123-91-1
2,4-Dinitrotoluene	121-14-2
2,6-Dinitrotoluene	606-20-2
2-Nitropropane	76-46-9
Acetaldehyde	75-07-0
Acetonitrile	75-05-8
Acrolein	107-02-8
Acrylamide	79-06-1
Allyl Chloride	107-05-1
Aniline	62-53-3
Antimony & Compounds	7440-36-0
Barium & Compounds	7440-39-3
Biphenyl	92-52-4
Carbon Disulfide	75-15-0
Carbon Tetrachloride	56-23-5
Chlorinated Dibenzo Furans	51207-31-9
Chlorinated Dibenzo-p-Dioxins	3268-87-9
Chlorine Dioxide	10049-04-4
Chlorobenzene	108-90-7
Chloroethane	75-00-3
Chloroform	67-66-3
Chloromethane	74-87-3
Chloroprene	126-99-8
Copper & Compounds	7440-50-8
Diaminotoluene	25376-45-8
Dibutyl Phthalate	84-74-2

Dichloromethane	75-09-2
Ethyl Acrylate	140-88-5
Ethyl Benzene	100-41-4
Glycol Ethers	09-86-4
Hexachloro-1,3-Butadiene	87-68-3
Hexachlorobenzene	118-74-1
Hexachloroethane	67-72-1
Hydrazine	302-01-2
Manganese & Compounds	7439-96-5
Mercury & Compounds	7439-97-6
Naphthalene & Methylnaphthalenes	91-20-3
Nitrobenzene	98-95-3
Phenol	108-95-2
Polynuclear Aromatic Hydrocarbons	206-44-0
Selenium & Compounds	7782-49-2
Styrene	100-42-5
Tetrachloroethane	79-34-5
Tetrachloroethylene	127-18-4
Toluene-2,4-Diisocyanate	584-84-9
Toluene-2,6-Diisocyanate	91-08-7
Trichloroethylene	79-01-6
Vinylidine Chloride	75-35-4
Xylene	1330-20-7

Class III	**CAS #**
1,1,1-Trichloroethane	71-55-6
Acrylic Acid	79-10-7
Ammonia	7664-41-7
Carbonyl Sulfide	463-58-1
Chlorine	7782-50-5
Cresol	1319-77-3
Cumene	98-82-8
Ethylene Glycol	107-21-1
Hydrochloric Acid	7647-01-0
Hydrogen Cyanide	74-90-8
Hydrogen Fluoride	7664-39-3
Hydrogen Sulfide	7783-06-4
Maleic Anhydride	108-31-6
Methanol	67-56-1
Methyl Ethyl Ketone	78-93-3
Methyl Isobutyl Ketone	108-10-1
Methyl Metharcylate	80-62-6
N-Butyl Alcohol	71-36-3
N-Hexane	110-54-3
Nitric Acid	7697-37-2
Phosgene	75-44-5
Phthalic Anhydride	85-44-9
Propionaldehyde	123-38-6
Pyridine	110-86-1
Sulfuric Acid	7664-93-9
Toluene	108-88-3
Vinyl Acetate	108-05-4
Zinc & Compounds	7440-66-6

TABLE 5 - GLOSSARY OF TERMS

Abatement — the reduction in degree, intensity, or elimination of pollution.
Acute Effect — occurring over a short period of time; used to describe brief exposures and effects, which appear promptly after exposure.
Air Quality Index — see Pollutant Standard Index.
Air Toxics — see Toxic Air Pollutants (TAPs).
Airshed — a term denoting a geographical area, the whole of which, because of topography, meteorology, and climate, shares the same air.
Alternative Fuels — See Clean Fuels.
Ambient Air — outdoor air; any portion of the atmosphere not confined by walls and a roof.
Anthropogenic Sources of Air Pollution sources of air pollution that are man-made, or the result of human activity; such as, industrial sources or exhaust from vehicles.
Area Source – any stationary source that is not a major source.
ASCII - the American Standard Code for Information Interchange is a code that allows computers to handle all printable characters. In ASCII, characters of the alphabet "A-Z", integers "0-9", and special characters "!@#$%^&*(" are all represented by a code number from 0-128. For example, the ASCII code for the uppercase letter (A) is 65
Atmosphere — the layer of life-giving gases (air) that surrounds the earth.
Attainment — a designation used when an area meets an air quality standard.
Attainment Demonstration — see Rate of Progress.
Banking — provision in permit regulations whereby a facility can take credit for reducing emissions beyond regulatory limits and use that credit at a later date.
Biogenic Sources of Air Pollution — sources found in nature or natural phenomena that emit air pollutants; such as, volatile organic compounds emitted from trees and other vegetation, or pollutants produced by volcanic eruptions or forest fires caused by lightning.
Boiler – a "boiler" is defined as a burner, firebox, or heat exchanger, and a means of creating and directing a flow of gases through the unit.
Bioaccumulation – term used to describe the process by which organisms may accumulate chemical substances in their bodies. The term refers to uptake of chemicals from water (bioconcentration) and from ingested food and sediment residues.
Carbon Monoxide (CO) — an odorless, tasteless, colorless gas that is emitted primarily from any form of combustion. CO is one of the six criteria pollutants for which EPA has established a National Ambient Air Quality Standard.
Carcinogen — any substance that can cause or contribute to the development of cancer.
Certification Statement – a document submitted to the Environmental Evaluation Division (EED) by facilities each year. In a Certification Statement, facility management certifies the validity of the data in the Emissions Inventory System (EIS) Submittal Files.
Chronic Effect — an adverse effect of long duration on a human or animal in which symptoms recur frequently or develop slowly over a long period of time.
Clean Air Act (CAA) — long-standing federal legislation that is the legal basis for the national clean air programs, last amended in 1990.
Clean Fuels — low-pollution fuels that can replace ordinary gasoline. Examples are compressed natural gas (CNG), methanol, ethanol, liquefied petroleum gas (LPG), and others. Also referred to as alternative fuels.
COBOL – "COmmon Business Oriented Language" is a programming language used in some computer systems that handle large data bases. The EIS is a series of computer programs written in the COBOL language.
Coding Forms – paper forms that graphically present the EIS Cards and fields. Facilities may use coding forms as an aid in entering their EIS data into computer Submittal Files. Only facilities with fewer than five NEDS Points may submit their EIS data to the EED on coding form instead of computer Submittal Files.

Combustion — burning, that is the production of heat and light energy through chemical change, usually oxidation of hydrocarbon fuel.

Continuous Emission Monitor (CEM) — a type of air emission monitoring device installed to operate continuously inside of smoke stacks.

Control Technologies/Control Measures equipment, processes, or activities used to reduce air pollution.

Emission — the release of pollutants into the outdoor atmosphere.

Emission Factors – published estimates based on the average measured emissions at several facilities in the same industry for the same general type of industrial process. Emission factors usually express releases as a ratio of amount released to process/equipment output.

Emissions Inventory — a list of air pollutants emitted into a community's atmosphere, usually a tabulation of data detailing the types, amounts, quantities, and sources of the emissions.

Emission Point – a single point is assigned a NEDS Identifier in EIS. An emission point can represent one or more physical pieces of equipment at a facility.

Emission Standard — the maximum amount of pollutant that is by regulation permitted to be discharged from a polluting source - for example, the number of pounds of dust that may be emitted per hour from an industrial process.

Enforcement — the legal methods used to make polluters obey the Clean Air Act.

Engineering Judgment – opinion based on evaluation of all pertinent data as would be determined by a properly trained engineer.

EPA — the U.S. Environmental Protection Agency the federal agency responsible for control of air and water pollution, toxic substances, solid and hazardous waste, and cleanup of contaminated sites.

EPCRA – Emergency Planning and Community Right-to-Know Act (Title III of the Superfund Amendments and Reauthorization Act of 1986).

Exceedance — a violation of environmental protection standards by exceeding allowable limits or concentration levels; such as an exceedance of the National Ambient Air Standard for ozone.

Existing Source – any stationary source that is not a new source.

Exposure—the act or an instance in which a chemical comes in contact with an organism by crossing biological barriers, and entering the body.

Fugitive Emissions — air emissions not caught by a capture or control system; for example, equipment leaks from valves, pumps, and compressors.

Glycol Dehydrators — dehydration equipment used by the natural gas processing industry to remove water vapor from natural gas. This equipment absorbs the water vapor using ethylene glycol or triethylene glycol; and then heats the glycol to drive off the water vapor in the form of steam. Glycol also absorbs significant amounts of volatile organic compounds (VOCs), which escape to the atmosphere when the steam is released. Pollution control devices, which capture and destroy these VOCs, are now required on glycol dehydrators that process more than five million cubic feet per day.

Incineration — the burning of household or industrial waste in a combustion chamber designed for the purpose.

Inspection/Maintenance Program — see Vehicle Inspection & Maintenance Program

Lead (Pb) — a heavy metal that is hazardous to health if breathed or swallowed. It is one of the six criteria pollutants for which EPA has established a National Ambient Air Quality Standard.

Louisiana Administrative Code (LAC) the code or set of government regulations for the state of Louisiana. Louisiana environmental regulations (those promulgated by the Louisiana Department of Environmental Quality) are found in Title 33 of the LAC. Air quality regulations are found in Part III of Title 33 of the LAC.

Louisiana Environmental Quality Act Subtitle II of Title 30 of the Louisiana Revised Statutes.

Louisiana Revised Statutes (LRS) — Acts of the Louisiana Legislature, which are encoded into the statutory code, or set of laws for the state of Louisiana. Most Louisiana environmental laws are found in LRS Title 30, Subtitle II - Environmental Quality.

Major Source – any stationary source of air pollutants that emits, or has the potential to emit 10 tons per year or more or 25 tons per year or more of any combination of toxic air

pollutants listed in LAC 33:III.Chapter 51, Table 51.1.

Manufacture – to make or process (a raw material) into a finished product, especially by a large-scale industrial operation.

Mass Balance – emission calculations relating to an entire industrial process or piece of process equipment where the amount of reactants equals the amount of the resulting product in a chemical reaction with any loss or difference accounted for as by-product chemicals in the wastestream or by calculating the input/output difference.

Maximum Achievable Control Technology (MACT) — technology-based standards to control emissions of the toxic air pollutants (TAPs) listed in the Louisiana Administrative Code, Title 33, Part III, Chapter 51.

Media – the surrounding environment (air, water, etc.) in which something exists.

Minor Source – any stationary source that is not a major source

Mobile Source — moving sources of air pollution, mainly transportation sources such as cars, trucks, buses, motorcycles, ships, barges, and aircraft.

Modeling (Air Pollutant Dispersion Modeling) — using computer programs or mathematical systems that obey a certain specified set of conditions to understand and predict the causes or occurrences of air pollution. Models simulate "real world" events. For example, models are used to simulate conditions, which cause ozone formation, and to predict when ozone exceedances may occur. Models are also used to predict the dispersion of air releases from industrial facilities. See also Photochemical Models and Urban Airshed Model.

Modification (modify) – any change in a facility including, but not limited to, a physical change, a change in method of operation, or a change in the raw materials or feedstocks used for products manufactured that increases or decreases the emission rate of any toxic air pollutant, or that results in the emission, at a rate greater than the minimum emission rate, of any toxic air pollutant not previously emitted.

Monitoring — sampling for and measuring of pollutants present in the atmosphere. EPA, state, and local agencies measure the types and amounts of pollutants in community air.

Monitoring Network — a system of monitoring sites established to ensure broad and consistent surveillance of the quality of the ambient air.

National Ambient Air Quality Standard (NAAQS) — health-based pollutant concentration limits that apply to outside air. Under a mandate from the Clean Air Act, EPA has established standards for six pollutants. Every five years, the standards must undergo scientific review for health risk. The most recent review resulted in EPA promulgating more stringent standards for ozone and particulate matter in 1997.

National Emission Standards for Hazardous Air Pollutants (NESHAP) — emissions standards set by EPA for air pollutants not covered by NAAQS that may cause an increase in deaths or in serious, irreversible, or incapacitating illness.

NEDS Point Id – an alphanumeric identifier assigned to one or more pieces of equipment for the purposes of tracking and reporting emissions data to the EIS. NEDS ids are assigned by the facility.

Neutralization – the reaction of an acid and a base to produce a salt and water. Mineral acids which have been neutralized prior to release or transfer are to be reported to TRI as zero release or transfer.

New Source – any affected facility, the construction or modification of which is commenced after the adoption of these regulations.

Nitrogen Dioxide (NO_2) — a light brown gas that can become an important component in the formation of ground-level ozone, or urban smog. It is formed primarily by the combustion of fossil fuels. NO2 is one of the six criteria pollutants for which EPA has established a National Ambient Air Quality Standard.

Non-attainment Area – an area (parish or group of parishes) designated by an administrative authority to be non-compliant with National Ambient Air Quality Standards.

Off-site Transfer – chemical wastes transported off-site to commercial facilities that store, treat, or dispose of wastes. Off-site facilities might be owned by the reporting facility or its parent company, or they may be separate enterprises such as incinerations, privately-owned wastewater treatment facilities, landfills, or facilities which process and re-sell such chemicals, such as recycling facilities or waste brokers.

Ozone (O_3) — a colorless gas, ozone is the major component of urban smog. It is produced by the chemical reaction of nitrogen dioxide and volatile organic compounds in the presence of sunlight. Ozone is one of the six criteria pollutants for which EPA has established a National Ambient Air Quality Standard. Although harmful to humans and the environment at ground level, ozone serves a useful purpose in the earth's outer atmosphere (or stratosphere), where a layer of ozone shields us from the sun's radiation.

Ozone Exceedance — see exceedance

Ozone Season – the five month period when ozone formation is at its peak in a locale. In the five-parish Baton Rouge Nonattainment Area and Calcasieu Parish, the Ozone Season is May-September.

Particulate Matter (PM) — fine liquid or solid particles such as dust, smoke, mist, fumes, or smog, found in air emissions. Particulate matter, in the form of PM-10 (particles less than 10 microns in size) is one of the six criteria pollutants for which EPA has established a National Ambient Air Quality Standard.

Parts Per Billion (ppb) — a concentration measurement; the number of parts of a given pollutant in a billion parts.

Parts Per Million (ppm) — a concentration measurement; the number of parts of a given pollutant in a million parts.

Permit — a document that resembles a license, required by the Clean Air Act for major sources of air pollution, such as power plants, chemical factories, and in some cases, smaller polluters. As Louisiana has a federally approved air permit program, permits are issued by the state environmental agency (i.e., the Louisiana DEQ).

Persistence -- refers to the length of time the chemical can exist in the environment before being destroyed (i.e., transformed) by natural processes.

PM, PM-10 — see Particulate Matter.

Pollutant Standards Index (PSI) — a system developed by the federal government for reporting ambient air quality to the public. By this system, air pollutant concentrations are translated into numerical values related to human health conditions.

Pollutant Code – is the SAROAD Pollutant Code of the pollutant being reported.

Portable Source – an emission source that moves or may be transported from one place to another.

Potential to Emit – the maximum capacity of a stationary source to emit a pollutant under its physical and operational design.

Precursors — compounds that change chemically or physically after being emitted into the air and eventually produce air pollutants. For example, volatile organic compounds and nitrogen dioxide are precursors for ozone.

Process – the preparation of a chemical for manufacture and distribution in commerce: (1) in the same form or physical state as, or in a different form or physical state from, that in which it was received by the person so preparing such substance, or (2) as part of an article containing the toxic chemical. Process also applies to the processing of a toxic chemical contained in a mixture or trade name product.

Production index – as applied to TRI reporting of waste minimization, a ratio of reporting-year production to the prior reporting-year production. The index is calculated to most closely reflect activities involving the chemical being reported on the Form R.

PSD – Prevention of Significant Deterioration.

PSD Permit – a type of permit issued to a facility after a PSD permit review, the most stringent type of permit review. A PSD review is necessary and all possible controls have been applied. See LAC 33:III.509.

Publicly Owned Treatment Works (POTWs) – a wastewater treatment works that is owned by a state or municipality including any devices used in the storage, treatment, recycling, and reclamation of domestic sewerage or a combination of domestic sewerage and industrial wastewaters. It also includes sewers, pipes, and other conveyances that carry wastewater to such a treatment works. The term also refers to the authority that has jurisdiction over discharges to and from such a treatment works.

Quality Assurance/Quality Control – the ability to prove to clients that the systems used to generate data are under control and that they fully incorporate the necessary quality control measures.

Regulated Louisiana Toxic Air Pollutants – pollutants listed in Table 51.1 of LAC 33:III.Chapter 51, also known as TEDI pollutants and TAPs.

Release – pursuant to the EPCRA Section 329(8), releases include any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment.

Risk Assessment -- a methodologic approach in which the toxicities of a chemical are identified, characterized, and analyzed for dose-response relationships, and a mathematical model is applied to the data to generate a numerical estimate that can serve as a guide to allowable exposures.

SARA – Superfund Amendment and Reauthorization Act of 1986.

SAROAD – the "Storage And Retrieval Of Aerometric Data" system is a coding system developed be EPA in the 1970's for distinguishing between different chemicals.

SAROAD Pollutant Code – a five-digit code assigned to a pollutant. The first digit determines the "major class" of the pollutant; the second digit determines the "sub-class" of the pollutant; the third digit determines the "family" of the pollutant; the fourth and fifth digits describe up to 99 pollutants under each family.

SIP — see State Implementation Plan.

Smog — used to describe many air pollution problems, particularly in urban areas. This term is a contraction of smoke and fog. It refers to the irritating stagnant haze resulting from the formation of ground-level ozone, which is often mixed with other air pollutants such as particulates.

SOCMI – see Synthetic Organic Chemical Manufacturing Industry.

Source Classification Code – a coding scheme created to describe a unique process within a source category. SCCs are used in Emissions Inventory to associate pollutant emissions to specific processes.

Source Code – identifies the process category for the SCC.

Source Description – a brief description of the source; for example, "Oil-fired Boiler" or "Lime kiln production".

Source Reduction – industrial source reduction is defined the Pollution Prevention Act of 1990 as "any practice which (1) reduces the amount of any hazardous substance, pollutant, or contaminant entering any wastestream or otherwise released into the environment (including fugitive emissions) prior to recycling, treatment, or disposal; and (2) reduces the hazards to public health and the environment associated with the release of such substances, pollutants, or contaminants. The term includes equipment or technology modifications, process or procedure modifications, reformulation or redesign of products, substitution of raw materials, and improvements in housekeeping, maintenance, training, or inventory control."

Standard Industrial Classification (SIC) - codes define industries in accordance with the composition and structure of the economy and cover the entire field of economic activities.

State Implementation Plan (SIP) — U.S. EPA-approved state plan for the establishment, regulation, and enforcement of air pollution standards.

Stationary Source — a fixed, non-mobile producer of pollution, usually at industrial or commercial facilities.

Standard Industrial Classification (SIC) Code – a number developed by the US Office of Management and Budget to identify industrial sectors. The first two digits identify the broad industrial sector (i.e., SIC code 20, Food and Kindred Products) and the last two digits represent a facility's specialty within this broad sector (i.e., SIC code 2047, Dog and Cat Food).

Stack Emissions – point source emissions that occur through confined air streams, such as stacks, vents, ducts, or pipes.

Sulfur Dioxide (SO_2) — a pungent, colorless gas formed primarily by the combustion of fossil fuels. SO2 is one of the six criteria pollutants for which EPA has established a National Ambient Air Quality Standard.

Synthetic Organic Chemical Manufacturing Industry (SOCMI) – the industry that produces, as intermediates or final products, one or more of the chemicals listed in Table 8 of LAC 33.III.Chapter 21.

Toxic Air Pollutants (TAPs) — pollutants that are regulated under the Louisiana Administrative Code Title 33, Part III, Chapter 51. The state list of toxic air pollutants encompasses the federal list of HAPs, and includes additional pollutants not

on the federal list. See also Hazardous Air Pollutants (HAPs).

Toxic Emissions Data Inventory (TEDI) — an inventory of all toxic air pollutants (TAPs) released by major toxics sources regulated under the Louisiana Comprehensive Toxic Air Pollutant Emission Control Program (LAC 33:III.Chapter 51).

Toxic Release Inventory (TRI) — a database of toxic releases by industrial facilities to air, water, land, and underground injection in the U.S. It is compiled from TRI reports, which are mandated under federal law.

Toxicity – a relative term generally used in comparing the harmful effect of one chemical on some biologic mechanism with the effect of another chemical.

Upsets — sudden or unforeseeable emissions event that is beyond the control of the owner or operator of an industrial facility. An upset is usually the result of equipment failure, accident, or emergency shutdown.

UTM (Universal Transverse Mercator) – a standard system of cartographic coordinates that is the latitude/longitude system for the purposes of atmospheric modeling, GIS, etc.

UTM Horizontal (Easting) Coordinate – analogous to longitude.

UTM Vertical (Northing) Coordinate – analogous to latitude.

Vehicle Inspection & Maintenance Program (I/M Program) — auto inspection programs are required for some polluted areas. These periodic inspections are required to check whether cars have emission control systems that are working properly.

Volatile Organic Compound (VOC) — an organic compound which evaporates readily at atmospheric temperatures, and which participates in atmospheric photochemical reactions.

TABLE 6 - Environmental Acronyms

**The following Environmental Acronyms may have one or more different meanings other than the cited text references.*

ACGIH	American Conference of Governmental Industrial Hygienists
ACM	Asbestos-Containing Materials
ANSI	American National Standards Institute, Inc.
API	American Petroleum Institute
AST	Above Ground Storage Tank
ASTM	American Society for Testing & Methods
ATSDR	Agency for Toxic Substances & Disease Registry
BACT	Best Available Control Technology
BDAT	Best Demonstrated Available Technology
BIF	Boiler and Industrial Furnace
BMP	Best Management Practice
BOD	Biological Oxygen Demand
CAA	Clean Air Act
CAER	Community Awareness & Emergency Response
CAMU	Corrective Action Management Unit
CAS	Chemical Abstract Service
CDC	Center for Disease Control
CEM	Continuous Emissions Monitoring
CERR	Consolidated Emissions Reporting Rule
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CLP	Contract Laboratory Program
CMS	Corrective Measures Study
COD	Chemical Oxygen Demand
CWA	Clean Water Act
DEQ	Dept. of Environmental Quality
DMR	Discharge Monitoring Report
DNR	Dept. of Natural Resources
DOC	Dissolved Organic Carbon
DRE	Destruction & Removal Efficiency
EHS	Extremely Hazardous Substance
EIS	Emissions Inventory System
EIS	Environmental Impact Statement
ELP	Environmental Leadership Program
EPA	Environmental Protection Agency
EPCRA	Emergency Planning & Community Right-to-Know Act
ERC	Emergency Response Commission
ERNS	Emergency Response Notification System
ESA	Environmental Site Assessment
FIFRA	Federal Insecticide, Fungicide & Rodenticide Act
FINDS	Facility Index System
FOIA	Freedom of Information Act
FR	Federal Register
HAP	Hazardous Air Pollutant
HCFC	Halogenated Chorofluorocarbon
HMR	Hazardous Materials Regulations
HON	Hazardous Organic NESHAP
HSP	Health & Safety Plan
HSWA	Hazardous & Solid Waste Amendments - 1984 Amendments to RCRA
IDLH	Immediately Dangerous to Life or Health

I/M	Inspection & Maintenance
LDR	Land Disposal Restrictions
LEL	Lower Explosive Limit
LEPC	Local Emergency Planning Commission
LUST	Leaking Underground Storage Tank
MACT	Maximum Achievable Control Technology
MCL	Maximum Containment Level
MTR	Minimum Technology Requirements
NA	Non-attainment Area
NAAQS	National Ambient Air Quality Standard
NACEPT	National Advisory Committee on Environmental Policy and Technology
NESHAP	National Emission Standard for Hazardous Air Pollutant
NIOSH	National Institute for Occupational Safety & Health
NOAA	National Oceanic & Atmospheric Administration
NOEC	No observed effect concentration
NORM	Naturally Occurring Radioactive Materials
NOx	Abbreviation for oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
NRC	Nuclear Regulatory Commission
NSPS	New Source Performance Standard
OSHA	Occupational Safety & Health Administration
PAH	Polynuclear Aromatic Hydrocarbon
PCB	Polychlorinated Biphenyls
PEL	Permissible Exposure Limit
PIC	Product of Incomplete Combustion
PIES	Pollution Prevention Information Exchange
PM	Particulate Matter
POTW	Publicly Owned Treatment Works
PPA	Pollution Prevention Act of 1990
ppb	parts per billion
PPE	Personal Protective Equipment
ppm	parts per million
PRP	Potentially Responsible Party
RCRA	Resource Conservation & Recovery Act
RFA	RCRA Facility Assessment
RFI	RCRA Facility Investigation
RQ	Reportable Quantity
SARA	Superfund Amendments & Reauthorization Act
SDWA	Safe Drinking Water Act
SERC	State Emergency Response Commission
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SOx	Sulfur Oxides
SOCMA	Synthetic Organic Chemical Manufacturers Association
SOP	Standard Operating Procedures
SPCC	Spill Prevention Control & Countermeasures
SQG	Small Quantity Generator
STEL	Short Term Exposure Limit
SWMU	Solid Waste Management Unit (RCRA)
TAP	Toxic Air Pollutant
TC	Toxicity Characteristics
TCLP	Toxicity Characteristic Leaching Procedure (RCRA)
THC	Total Hydrocarbons
TITLE III	Emergency Planning and Community Right-to-Know Act

TLV	Threshold Limit Value
TOXNET	Toxicology Network
TPH	Total Petroleum Hydrocarbons
TPQ	Total Planning Quantity
TRI	Toxic Release Inventory
TSCA	Toxic Substance Control Act
TSDF	Treatment, Storage and Disposal Facility
TSP	Total Suspended Particulates
TSS	Total Suspended Solids
TUR	Toxic Use Reduction
TWA	Time Weighted Average
UIC	Underground Injection Control
USC	United States Code
USGS	U.S. Geological Survey
UST	Underground Storage Tank
VOC	Volatile Organic Compounds
VOL	Volatile Organic Liquid
WQM	Water Quality Management
WQS	Water Quality Standards
33/50	An EPA project inviting manufacturers to make reductions in 17 targeted chemicals. The numbers refer to the national goals of 33% reduction by the end of 1992 and 50% reduction by the end of 1995.

TABLE 7 - REFERENCES

- Access EPA, USEPA, EPA220B-92-014, 1992.
- Agency for Toxic Substances and Disease Registry, Chemical Fact Sheet: www.atsdr.cdc.gov
- Cancer Research (Supplement), Pesticides and Non-Hodgkin's Lymphoma, Volume 52, 5485a-5488a, October 1992.
- Chemical Manufacturers Association Environmental Update
- Federal Register, Vol. 64, No. 209, October 29, 1999, 58666-58753; Persistent Bioaccuccumulative Toxic (PBT) Chemicals, Final Rule.
- Federal Register, Vol. 65, No. 124, June 27, 2000, 39552-39556; Phosphoric Acid, Community Right-To-Know Toxic Chemical Release Reporting, Final Rule.
- Federal Register, Vol. 66, No. 11, January 17, 2001, 4500-4547; Lead and Lead Compounds Lowering of Reporting Thresholds, Community Right-To-Know Toxic Chemical Release Reporting, Final Rule.
- Guide to Environmental Acronyms, Envirocorp Services & Technology.
- Klaassen, Curtis D. Casaret & Doull's Toxicology: The Basic Science of Poisons-Fifth Edition. The McGraw-Hill Companies, Inc., 1996.
- Louisiana Department of Environmental Quality, Office of Air Quality and Nuclear Energy (1990, March). Development Document for the Initial List of 100 Toxic Air Pollutants. Baton Rouge, Louisiana. Louisiana Department of Environmental Quality.
- Louisiana Department of Environmental Quality, 1999 Annual Mercury Report.
- Manahan, Stanley E. Environmental Chemistry. CRC Press, Inc., 1994.
- New Jersey Department of Health and Senior Services. Hazardous Substance Fact Sheet. www.state.nj.us/health
- PL 99-499. (October, 1986) Superfund Amendments and Reauthorization Act. 100 Stat. 1613.
- Sax, N.I. and Lewis, R.J. 1989. Dangerous Properties of Industrial Materials. Seventh Edition. Vol. II and III. Van Nostrand Reinhold. New York, U.S.A.
- Sittig, Marshall. 1981. Handbook of Toxic and Hazardous Chemicals. Noyes Publication. Park Ridge, New Jersey, U.S.A.
- Swain, E.B. 1994. Strategies for Reducing Mercury in Minnesota. MPCA Mercury Task Force. Minnesota Pollution Control Agency. St. Paul, MN. 58pp.
- U.S. Environmental Protection Agency, Office of Pollution Prevention and Toxics (May 1992). Hazard Assessment Guidelines for Listing Chemicals on the Toxic Release Inventory. Washington, DC. U.S. Government Printing Office.
- U.S. Environmental Protection Agency, Office of Pollution Prevention and Toxics (May 1992). Issue Paper Prepared for the Public Meeting on Expansion of Toxic Release Inventory. Washington, DC. U.S. Government Printing Office.
- U.S. Environmental Protection Agency, Office of Pollution Prevention and Toxics (May 1992). Toxic Chemical Release Inventory Reporting Form and Instructions. Revised 1998 Version. (EPA 700-K-92-002). Washington, DC. U.S. Government Printing Office.
- U.S. Environmental Protection Agency, Office of Pollution Prevention and Toxics (May 1992). 1990 Toxic Release Inventory. Public Data Release. (EPA 700-S-92002). Washington, DC. U.S. Government Printing Office.
- U.S. Environmental Protection Agency, Office of Toxic Substances (1986). New Jersey Department of Health Right-To-Know Program. Hazardous Substance Fact Sheets. U.S. Government Printing Office.
- U.S. Environmental Protection Agency, Office of Toxic Substances, (1990, September). Toxics in the Community. National and Local Perspectives (EPA 560/4-90017). Washington, DC. U.S. Government Printing Office.

- World Health Organization, International Agency for Research on Cancer Monographs on the Evaluation of Carcinogenic Risks to Humans, Volume 57, page 96, 1993.

TABLE 8 - SOURCES OF ASSOCIATED INFORMATION

The data contained in this report and additional information to assist in interpreting its contents, are available to the public in a variety of places:

1. TRI Data can be assessed through LDEQ's Web Page on the Internet at the address below:

   http://www.deq.state.la.us/evaluation/TRI/index.htm

2. Emissions Inventory Data can be assessed through LDEQ's Web Page on the Internet at the address below:

   http://www.deq.state.la.us/evaluation/eis/index.htm

3. The Form R's submitted by individual facilities within the state of Louisiana are on file at the Office of Environmental Assessment, Evaluation Division of the Louisiana Department of Environmental Quality. Chemical information and inquiries should be directed to this section in writing or by calling:

   Attn: Mrs. Linda Brown
   P.O. Box 82178
   7290 Bluebonnet Road
   Baton Rouge, LA, 70884-2178
   (225) 765-0305

4. The Emissions Inventory forms submitted by individual facilities within the state of Louisiana are on file at the Office of Environmental Assessment, Evaluation Division of the Louisiana Department of Environmental Quality. Chemical information and inquiries should be directed to this section in writing or by calling:

   Attn: Elizabeth McDearman
   P.O. Box 82178
   7290 Bluebonnet Road
   Baton Rouge, LA, 70884-2178
   (225) 765-0303

5. You Local Emergency Planning Committee (LEPC) should have information about the types of chemicals located on-site at facilities in your area. Another source of this type of information is your local fire department or your local Emergency Preparedness Office. Their phone numbers can be found in your local phone book or by calling your local library.

4. The Office of State Police in Baton Rouge also has information concerning the types of chemicals that facilities have on-site. Their telephone number is:

   (225) 925-6113
   http://www.dps.state.la.us/lsp/tess.html

5. The United States Environmental Protection Agency, Toxic Release Inventory Homepage:

   http://www.epa.gov/tri

6. State Designated Toxic Release Inventory (TRI) Contacts:

   http://www.epa.gov/tri/programs/state_programs.htm#directory

7. US EPA Office of Environmental Information-TRI Explorer:

   http://www.epa.gov/tri/triexplorer

8. EPA's TTNWEB Chief Homepage:

http://www.epa.gov/ttn/chief/

9. EPA Environmental indicators Homepage:

www.epa.gov/opptintr/env_ind/

10. EPA Integrated Risk Information System:

www.epa.gov/iris

11. Browse TRI topics on US EPA Homepage:

www.epa.gov/tri/topics.htm

12. EPA Envirofacts Warehouse:

www.epa.gov/enviro/index_java.html

13. The National Library of Medicine (NLM)'s Toxicology Data Network, commonly referred to as TOXNET, is a computerized collection of toxicology orientated databases. It also contains all of the Toxic Release Inventory information on every facility in the nation that has filed Form R's. The system allows access to valuable data on hazardous chemicals, as well as the Toxic Release Inventory information. Many Universities have the ability to search the NLM system. Check with those in your area.

http://www.nlm.nih.gov/

14. Web Page for Agency for Toxic Substances and Disease Registry:

http://www.atsdr.cdc.gov/

15. EPA Federal Register Documents:

http://www.epa.gov/fedrgstr/

16. The Louisiana Office of Public Health's Environmental Epidemiology and Toxicology Section can provide you with facts on toxological, health, and environmental effects, as well as information from the NLM system. Their office in New Orleans may be reached by calling:

(504) 568-8537 or 1 (888) 293-7020
http://www.oph.dhh.state.la.us/environmentalepidemiology/index.html

Your local Public Health Unit and you family physician are additional places where questions can be answered.

17. If you are interested in purchasing copies of the national data or that of an individual state you may call the EPA's toll-free Emergency Planning and Community Right-To-Know Hotline. The hotline personnel are also available to answer any other questions you may have concerning the Emergency Planning and Community Right-To-Know Act. Their phone number is:

(800) 424-9346
http://www.epa.gov/epaoswer/hotline/index.htm

Toxic Releases Emissions Ranking Query Form:

http://www.epa.gov/envirofw/html/tris/reports/emsnrnk_query.html

State Emergency Response Commission (SERC) & Local Emergency Planning Committee (LEPC) contacts maintained by Right-To-Know Network:

http://www.rtk.net/trisearch.html

18. Another Source of information on toxicological, health, and environmental effects is you local library where numerous books, journals, and references are available.

Library of Congress: http://www.lcweb.loc.gov/
Louisiana State Library: http://www.state.lib.la.us/

19. Call the individual company.

20. Chemical Manufacturers Association (CMA):

(800) 624-4321 Or CHEMTRAC (800) 262-8200
http://es.epa.gov/techinfo/facts/cma/cma.html

21. Louisiana Chemical Association (LCA):

(225) 344-2609

22. Mid-Continent Oil and Gas:

(225) 387-3205
http://www.neis.com

23. Center for Energy and Environmental Studies, Southern University

(225) 771-4724
http://www.subr.edu/CEES/

24. Institute for Environmental Science and Louisiana Energy and Environmental Resource Information Center (LEERIC), Louisiana State University

http://www.leeric.lsu.edu/

25. Louisiana Environmental Action Network:

(225) 928-1315